



Carlos A. Gimenez, Mayor

Department of Regulatory and Economic Resources

Environmental Resources Management

701 NW 1st Court, 4th Floor

Miami, Florida 33136-3912

T 305-372-6700 F 305-372-6982

miamidade.gov

July 15, 2019

CERTIFIED MAIL NO. 7018 1130 0001 5261 1548
RETURN RECEIPT REQUESTED

Emilio T. Gonzalez, City Manager
City of Miami
444 Southwest 2nd Avenue
Miami, Florida 331300

Re: Melreese Golf Course (AW-284/File-9442) located at, near, or in the vicinity of 1802 NW 37 Avenue, Miami, Miami-Dade County, Florida.

Dear Mr. Gonzalez:

The Department of Regulatory and Economic Resources-Division of Environmental Resources Management (DERM) has conducted additional soil sampling at the subject site. The sampling was conducted on June 13, 2019 with results provided by July 2, 2019. The laboratory data is attached.

As observed during the soil sampling event, DERM identified three soil sample locations (SB-3, SB-5, and SB-10) with surficial debris in the upper soil interval that require immediate attention as they pose a physical hazard. In addition, one soil sample location (SB-1) exhibited total lead concentrations that also requires further action. At each of the SB-3, SB-5, and SB-10 locations, the horizontal extent of the surficial debris shall be defined from the top 1' interval. For the SB-1 location, the horizontal extent of the total lead impacts shall be defined in the 0-6" and 6"-2' intervals. Once defined, the physical hazards and total lead impacts shall be addressed through soil removal and replacement with clean fill or through an approved engineering control. The locations of the specific soil borings referenced above are provided on the attached map. A report documenting that the referenced areas have been addressed as described shall be provided to DERM within thirty (30) days upon receipt of this letter.

DERM has the option to split any samples deemed necessary with the consultant or laboratory at the subject site. The consultant collecting the samples shall perform field sampling work in accordance with the Standard Operating Procedures provided in Chapter 62-160, Florida Administrative Code (FAC), as amended. The laboratory analyzing the samples shall perform laboratory analyses pursuant to the National Environmental Laboratory Accreditation Program (NELAP) certification requirements. If the data submitted exhibits a substantial variance from DERM split sample analysis, a complete resampling using two independent certified laboratories will be required.

DERM shall be notified in writing a minimum of three (3) working days prior to the implementation of any sampling or field activities. Email notifications shall be directed to DERMPCD@miamidade.gov. Please include the DERM file number on all correspondence.

Failure to adhere to the items and timeframes stipulated above may result in enforcement action for this site.

Delivering Excellence Every Day

Mr. Gonzalez
AW-284
July 15, 2019
Page 2 of 2

Any person aggrieved by any action or decision of the DERM Director may appeal said action or decision to the Environmental Quality Control Board (EQCB) by filing a written notice of appeal along with submittal of the applicable fee, to the Code Coordination and Public Hearings Section of DERM within fifteen (15) days of the date of the action or decision by DERM.

If you have any questions concerning the above, please contact Thomas Kux, P.G., (kuxt@miamidade.gov) of DERM at (305) 372-6700.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Wilbur Mayorga', with a horizontal line underneath.

Wilbur Mayorga, P.E., Chief
Environmental Monitoring & Restoration Division

TK
Attach

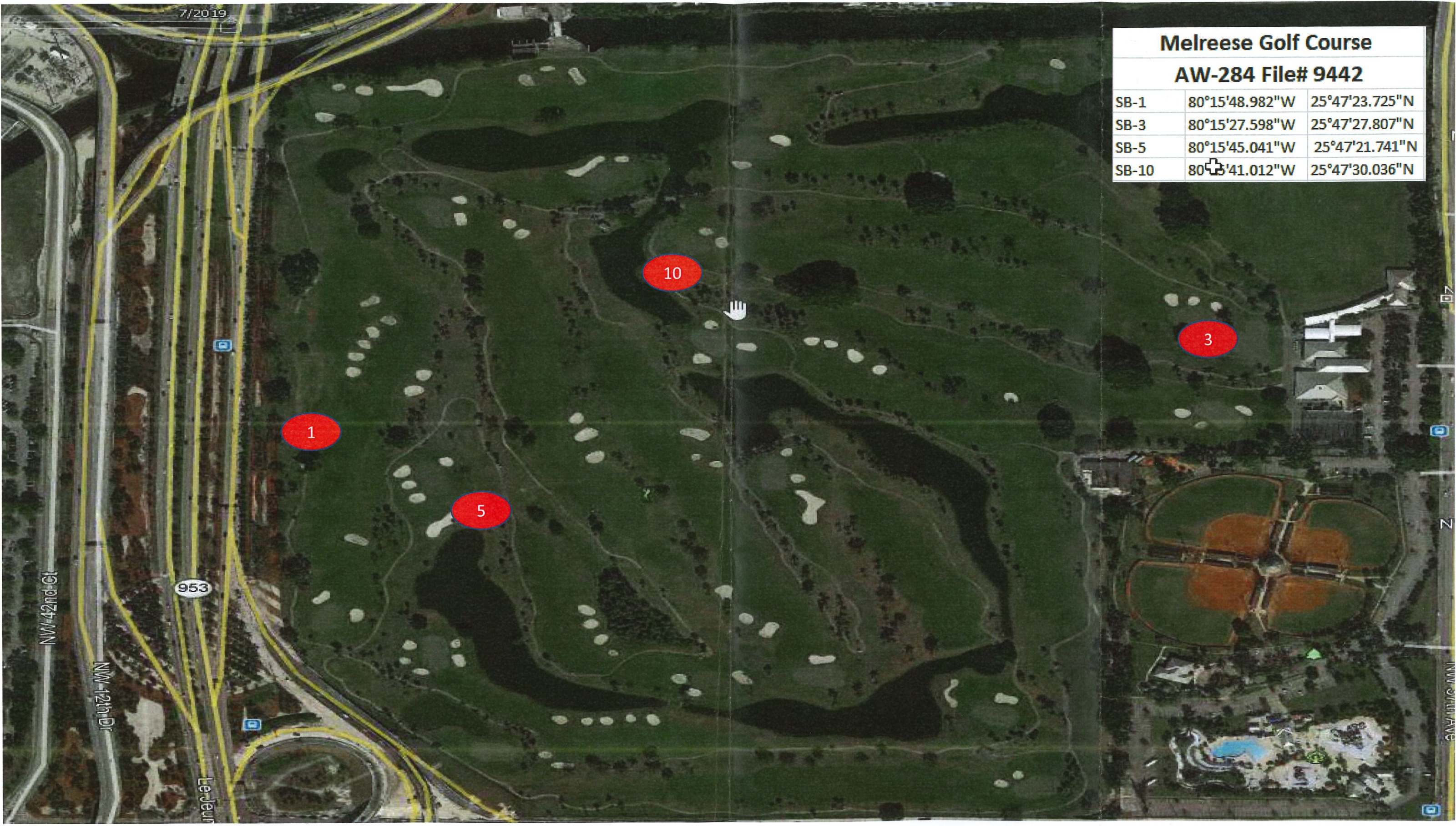
Ec: Lee Hefty, DERM
John Andersen, DERM
Samir Elmir, FLDOH

7/2019

Melreese Golf Course

AW-284 File# 9442

SB-1	80°15'48.982"W	25°47'23.725"N
SB-3	80°15'27.598"W	25°47'27.807"N
SB-5	80°15'45.041"W	25°47'21.741"N
SB-10	80°15'41.012"W	25°47'30.036"N



NW 42nd Ct

NW 12th Dr

953

Le Jeune

NW 24th Ave

Melreese Golf Course

AW-284 File# 9442

SB-1	80°15'48.982"W	25°47'23.725"N
SB-2	80°15'34.483"W	25°47'29.326"N
SB-3	80°15'27.598"W	25°47'27.807"N
SB-4	80°15'26.163"W	25°47'29.938"N
SB-5	80°15'45.041"W	25°47'21.741"N
SB-6	80°15'44.119"W	25°47'30.401"N
SB-7	80°15'37.622"W	25°47'16.891"N
SB-8	80°15'30.871"W	25°47'21.014"N
SB-9	80°15'40.029"W	25°47'37.003"N
SB-10	80°15'41.012"W	25°47'30.036"N

G94

RUSH

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MIAMI-DADE COUNTY, FLORIDA

EPA # FL00025
FL CERT # E46126

RUSH

Department of Regulatory and Economic Resources

Environmental Resources Management

Office of Laboratory Services

MIAMI, FLORIDA 33130-1510

(305)-375-1851

LABORATORY ANALYSIS RECORD
ENFORCEMENTSite : Melreese Golf CourseAddress: 1802 NW 37th AvenueSampler/Section: Vianey Alvarado / Richard Hilaire / EMESDeliverer/Section: Vianey Alvarado / Richard Hilaire / EMESReturn Analysis to/Section: Tom Kux / Raymond Gonzalez / EMESC.C.#: 992511 Permit: AW-284 Phone: 305-372-6700

Sample #:

323468

Date: 6/12/2019Time: 10:53

Collection Point:

MGC_SB-1

Observation/Known Hazards:

13 JUN '19 12:34

Clock-In Date/Inspector

Sign/By Inspector

*Sign By Lab Custodian

AD13810

*Laboratory ID #

5.3

*Temp. (°C)
upon Rec.

Return For TCLP / SPLP?

Clock-In Date/Inspector

Date Requested

*Laboratory ID # / Fridge #

*Laboratory ID # / Fridge #

14 JUN '19 8:11

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

For Disposal Date:

See Metal Disposal Log

*Sample Disposal Date

*Extracted By / Date

17 JUN '19 11:14

*Analyzed By / Date

^Regulatory Limits: SDWA ___ NPDES ___ RCRA ___ Chap. 24 ___ Other ___	
Matrix: H2O ___ Soil/Sludge <input checked="" type="checkbox"/> Product ___ Layer ___ Sewage ___ Other ___	
Preservation: None <input checked="" type="checkbox"/> Acid ___ Base ___ Thermal: Iced <input checked="" type="checkbox"/> No Iced ___	
Sample Bottle	Picked-Up Date
Prepared Lot #: <u>050318 G5U</u>	By Inspector: <u>6/12/2019</u>
Split Sample? Yes ___ No <input checked="" type="checkbox"/> Consultant/Lab: _____	
Test(s) Run/Method #	Test(s) Run/Method #
<u>As, Ba, Pb</u>	
	Temp° Iced? <u>5.3</u> (Y) N
	Rep. Sample

Relinquished To: **Contract Lab

Delivered By / Date:

Received By / Date:

Extracted By / Date:

Analyzed By / Date:

Returned By / Date:

LAB RESULTS ATTACHED

Comments

light gray fine soil with shell fragments
N 75° 47' 24", W 80° 15' 49"

* By RER Lab ** By Contract Lab ^ Please specify the regulatory limit range

Revised 02/03/2014



EPA # FL0002
FL CERT E46126

Office of Laboratory Services

Sample Analysis Record

R E R

211 W. Flagler St.
Miami, FL 33130
(305) 375-1851

Metals

Site Description : **MELREESE GOLF COURSE**

Blue Card No : 323468

Collected : 06/13/19 10:53

LIMS ID : AD13810

Received : 06/13/19 12:34

Sampled By : HILAR-RI

Matrix : Solid

Metals	Conc.	MDL/PQL	Unit	DF	Extracted	Digested	Analyzed	By
% Moisture	19.38	n/a	%					
Arsenic by 6010-3050B	33.1	1.0 / 1.5 (RL/PQL: 1.2 / 1.8)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:25	MG
Barium by 6010-3050B	7.4	0.3 / 1.2 (RL/PQL: 0.4 / 1.5)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:25	MG
Lead by 6010-3050B	854	0.3 / 1.2 (RL/PQL: 0.4 / 1.5)	mg/Kg	2	n/a	06/14/19 9:45	06/17/19 10:57	MG
Comment : C12								

Analysis Qualifiers / Comments Description

C12 Sample was diluted due to the presence of high levels of target analytes.

U = Below MDL MDL = Method Detection Limit I = Between MDL and PQL DF = Dilution Factor All analyses are in compliance with NELAP standards.

Date of Issue
6/17/2019

Page 1 of 1 Note : Multiply MDL(or RL) by Dilution Factor (1.0, unless noted otherwise.)

All results being reported under this report apply to the samples analyzed. n/a=Not Applicable

Results are reported in dry wt. unless otherwise noted. RL= Reporting Limits

If you have any questions please contact the QA Officer at 305-375-1851.

Yin Chen / QA Officer

GSH

RUSH

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MIAMI-DADE COUNTY, FLORIDA

EPA # FL00025
FL CERT # E46126

RUSH

Department of Regulatory and Economic Resources

Environmental Resources Management

Office of Laboratory Services
MIAMI, FLORIDA 33130-1510
(305)-375-1851LABORATORY ANALYSIS RECORD
ENFORCEMENTSite : Melreese Golf CourseAddress: 1802 NW 37th AvenueSampler/Section: Vianey Alvarado / Richard Hilaire / EMESDeliverer/Section: Vianey Alvarado / Richard Hilaire / EMESReturn Analysis to/Section: Tom Kux / Raymond Gonzalez / EMESC.C.#: 992511 Permit : AW-284 Phone : 305-372-6700Sample #: 323447Date: 6/12/2019 Time: 10:05

Collection Point :

MGC_SB-2

Observation/Known Hazards:

13 JUN '19 12:34

AD13802

5.3

Clock-In Date/Inspector

Sign By Inspector

*Sign By Lab Custodian

*Laboratory ID #

*Temp. (°C)
upon Rec.

Return For TCLP / SPLP?

Clock-In Date/Inspector

Date Requested

*Laboratory ID # / Fridge #

*Laboratory ID # / Fridge #

14 JUN '19 8:10

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

For Disposal Date:

See Metal Disposal Log

*Sample Disposal Date

*Extracted By / Date

17 JUN '19 11:14

*Analyzed By / Date

^Regulatory Limits: SDWA __ NPDES __ RCRA __ Chap. 24 __ Other __	
Matrix: H2O __ Soil/Sludge <input checked="" type="checkbox"/> Product __ Layer __ Sewage __ Other __	
Preservation: None <input checked="" type="checkbox"/> Acid __ Base __ Thermal: Iced <input checked="" type="checkbox"/> No Iced __	
Sample Bottle Prepared Lot #: <u>050318GSH</u>	Picked-Up Date By Inspector: <u>6/12/2019</u>
Split Sample? Yes __ No <input checked="" type="checkbox"/> Consultant/Lab: _____	
Test(s) Run/Method #	Test(s) Run/Method #
<u>As, Ba, Pb</u>	Temp° Iced? <u>5.3</u> <input checked="" type="radio"/> N
	Rep. Sample <u>AD13796</u>

Relinquished To: **Contract Lab

Delivered By / Date:

Received By / Date:

Extracted By / Date:

Analyzed By / Date:

Returned By / Date:

Comments

Fine light brown grain sand
N 23° 47' 29", W 80° 15' 35"

* By RER Lab ** By Contract Lab ^ Please specify the regulatory limit range

Revised 02/03/2014

LAB RESULTS ATTACHED



EPA # FL0002
FL CERT E46126

Office of Laboratory Services

Sample Analysis Record

R E R

211 W. Flagler St.
Miami, FL 33130
(305) 375-1851

Metals

Site Description : **MELREESE GOLF COURSE**

Blue Card No : 323447 Collected : 06/13/19 10:05
LIMS ID : AD13802 Received : 06/13/19 12:34
Sampled By : HILAR-RI Matrix : Solid

Metals	Conc.	MDL/PQL	Unit	DF	Extracted	Digested	Analyzed	By
% Moisture	13.26	n/a	%					
Arsenic by 6010-3050B	16.0	1.0 / 1.5 (RL/PQL: 1.2 / 1.7)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:18	MG
Barium by 6010-3050B	5.1	0.3 / 1.2 (RL/PQL: 0.3 / 1.4)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:18	MG
Lead by 6010-3050B	3.6	0.3 / 1.2 (RL/PQL: 0.3 / 1.4)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:18	MG

Analysis Qualifiers / Comments Description

- No Comment

U = Below MDL MDL = Method Detection Limit I = Between MDL and PQL DF = Dilution Factor All analyses are in compliance with NELAP standards.

Date of Issue
6/17/2019

Page 1 of 1 Note : Multiply MDL(or RL) by Dilution Factor (1.0, unless noted otherwise.)

All results being reported under this report apply to the samples analyzed. n/a=Not Applicable

Yin Chen / QA Officer

Results are reported in dry wt. unless otherwise noted. RL= Reporting Limits

If you have any questions please contact the QA Officer at 305-375-1851.

Gsu

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MIAMI-DADE COUNTY, FLORIDA


 EPA # FL00025
 FL CERT # E46126

RUSH

 LABORATORY ANALYSIS RECORD
 ENFORCEMENT

Department of Regulatory and Economic Resources

Environmental Resources Management

 Office of Laboratory Services
 MIAMI, FLORIDA 33130-1510
 (305)-375-1851
Site : Melreese Golf CourseAddress : 1802 NW 37th AvenueSampler/Section: Vianey Alvarado / Richard Hilaire / EMESDeliverer/Section: Vianey Alvarado / Richard Hilaire / EMESReturn Analysis to/Section: Tom Kux / Raymond Gonzalez / EMESC.C.#: 992511 Permit : AW-284 Phone : 305-372-6700Sample #: 323467Date : 6/12/2019 Time : 9:53

Collection Point :

MGC_SB-3

Observation/Known Hazards:



13 JUN '19 12:34

AD13800

5.3

Clock-In Date/Inspector

Sign By Inspector

*Sign By Lab Custodian

*Laboratory ID #

*Temp.(°C)
upon Rec.

Return For TCLP / SPLP?

Clock-In Date/Inspector

Date Requested

*Laboratory ID # / Fridge #

*Laboratory ID # / Fridge #

14 JUN '19 8:10

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

 For Disposal Date:
 See Metal Disposal Log

*Sample Disposal Date

*Extracted By / Date

17 JUN '19 11:14

*Analyzed By / Date

^Regulatory Limits: SDWA <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Chap. 24 <input type="checkbox"/> Other <input type="checkbox"/>	
Matrix: H2O <input type="checkbox"/> Soil/Sludge <input checked="" type="checkbox"/> Product <input type="checkbox"/> Layer <input type="checkbox"/> Sewage <input type="checkbox"/> Other <input type="checkbox"/>	
Preservation: None <input checked="" type="checkbox"/> Acid <input type="checkbox"/> Base <input type="checkbox"/> Thermal: Iced <input checked="" type="checkbox"/> No Iced <input type="checkbox"/>	
Sample Bottle	Picked-Up Date
Prepared Lot #: <u>05031895 U</u>	By Inspector: <u>6/12/2019</u>
Split Sample? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Consultant/Lab: <input type="checkbox"/>	
Test(s) Run/Method #	Test(s) Run/Method #
<u>As, Ba, Pb</u>	Temp° Iced? <input type="checkbox"/>
	<u>ADI3796</u> <u>5.3</u> <input checked="" type="radio"/> Y <input type="radio"/> N
	Rep. Sample

Relinquished To: **Contract Lab

Delivered By / Date:

Received By / Date:

Extracted By / Date:

Analyzed By / Date:

Returned By / Date:

LAB RESULTS ATTACHED

Comments

Dark gray fine sand, from 4" to 6" black soil with rock fragments & glass
N25° 47' 28", W80° 15' 28"

* By RER Lab ** By Contract Lab ^ Please specify the regulatory limit range

Revised 02/03/2014



EPA # FL0002
FL CERT E46126

Office of Laboratory Services

Sample Analysis Record

R E R

211 W. Flagler St.
Miami, FL 33130
(305) 375-1851

Metals

Site Description : MELREESE GOLF COURSE

Blue Card No : 323467 Collected : 06/13/19 9:53
LIMS ID : AD13800 Received : 06/13/19 12:34
Sampled By : HILAR-RI Matrix : Solid

Metals	Conc.	MDL/PQL	Unit	DF	Extracted	Digested	Analyzed	By
% Moisture	23.24	n/a	%					
Arsenic by 6010-3050B	38.7	1.0 / 1.5 (RL/PQL: 1.3 / 2.0)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:17	MG
Barium by 6010-3050B	131	0.3 / 1.2 (RL/PQL: 0.4 / 1.6)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:17	MG
Lead by 6010-3050B	492	0.3 / 1.2 (RL/PQL: 0.4 / 1.6)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:17	MG

Analysis Qualifiers / Comments Description

- No Comment

U = Below MDL MDL = Method Detection Limit I = Between MDL and PQL DF = Dilution Factor All analyses are in compliance with NELAC standards.

Date of Issue
6/17/2019

Page 1 of 1 Note : Multiply MDL(or RL) by Dilution Factor (1.0, unless noted otherwise.)

All results being reported under this report apply to the samples analyzed. n/a=Not Applicable

Yin Chen / QA Officer

Results are reported in dry wt. unless otherwise noted. RL= Reporting Limits

If you have any questions please contact the QA Officer at 305-375-1851.

G5U

RUSH

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MIAMI-DADE COUNTY, FLORIDA

EPA # FL00025
FL CERT # E46126

RUSH

LABORATORY ANALYSIS RECORD
ENFORCEMENT

Department of Regulatory and Economic Resources

Environmental Resources Management

Office of Laboratory Services
MIAMI, FLORIDA 33130-1510
(305)-375-1851Site : Melreese Golf CourseAddress : 1802 NW 37th AvenueSampler/Section: Vianey Alvarado / Richard Hilaire / EMESDeliverer/Section: Vianey Alvarado / Richard Hilaire / EMESReturn Analysis to/Section: Tom Kux / Raymond Gonzalez / EMESC.C.#: 992511 Permit : AW-284 Phone : 305-372-6700Sample #: 323463Date : 6/12/2019 Time : 11:06

Collection Point :

MGC_SB-5

Observation/Known Hazards:

13 JUN '19 12:34

Clock-In Date/Inspector

Sign By Inspector

*Sign By Lab Custodian

AD13812

*Laboratory ID #

*Temp. (°C)
upon Rec.

Return For TCLP / SPLP?

Clock-In Date/Inspector

Date Requested

*Laboratory ID # / Fridge #

*Laboratory ID # / Fridge #

14 JUN '19 8:11

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

For Disposal Date:

See Metal Disposal Log

*Sample Disposal Date

*Extracted By / Date

17 JUN '19 11:14

*Analyzed By / Date

Comments

light tan fine grain sand with some shell fragments + glass
N25° 47' 22", W 80° 13' 45"

* By RER Lab ** By Contract Lab ^ Please specify the regulatory limit range

Revised 02/03/2014

^Regulatory Limits: SDWA ___ NPDES ___ RCRA ___ Chap. 24 ___ Other ___	
Matrix: H2O ___ Soil/Sludge <input checked="" type="checkbox"/> Product ___ Layer ___ Sewage ___ Other ___	
Preservation: None <input checked="" type="checkbox"/> Acid ___ Base ___ Thermal: Iced <input checked="" type="checkbox"/> No Iced ___	
Sample Bottle Prepared Lot #: <u>050318 G5 U</u>	Picked-Up Date By Inspector: <u>6/12/2019</u>
Split Sample? Yes ___ No <input checked="" type="checkbox"/> Consultant/Lab: _____	
Test(s) Run/Method #	Test(s) Run/Method #
<u>As, Ba, Pb</u>	
	Temp° Iced? <u>5.3</u> <input checked="" type="checkbox"/> N
	<u>4D13796</u> Rep. Sample

Relinquished To: **Contract Lab

Delivered By / Date:

Received By / Date:

Extracted By / Date:

Analyzed By / Date:

Returned By / Date:

LAB RESULTS ATTACHED

6/17/19



EPA # FL0002
FL CERT E46126

Office of Laboratory Services

Sample Analysis Record

R E R

211 W. Flagler St.
Miami, FL 33130
(305) 375-1851

Metals

Site Description : MELREESE GOLF COURSE

Blue Card No : 323463 Collected : 06/13/19 11:06
LIMS ID : AD13812 Received : 06/13/19 12:34
Sampled By : HILAR-RI Matrix : Solid

Metals	Conc.	MDL/PQL	Unit	DF	Extracted	Digested	Analyzed	By
% Moisture	18.75	n/a	%					
Arsenic by 6010-3050B	7.2	1.0 / 1.5 (RL/PQL: 1.2 / 1.9)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:31	MG
Barium by 6010-3050B	6.2	0.3 / 1.2 (RL/PQL: 0.4 / 1.5)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:31	MG
Lead by 6010-3050B	U	0.3 / 1.2 (RL/PQL: 0.4 / 1.5)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:31	MG

Analysis Qualifiers / Comments Description

- No Comment

U = Below MDL MDL = Method Detection Limit I = Between MDL and PQL DF = Dilution Factor All analyses are in compliance with NELAC standards.

Date of Issue
6/17/2019

Page 1 of 1 Note : Multiply MDL(or RL) by Dilution Factor (1.0, unless noted otherwise.)

All results being reported under this report apply to the samples analyzed. n/a=Not Applicable

Results are reported in dry wt. unless otherwise noted. RL= Reporting Limits

If you have any questions please contact the QA Officer at 305-375-1851.

Yin Chen / QA Officer

GSA

RUSH

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MIAMI-DADE COUNTY, FLORIDA

EPA # FL00025
FL CERT # E46126

RUSH

LABORATORY ANALYSIS RECORD
ENFORCEMENT

Department of Regulatory and Economic Resources

Environmental Resources Management

Office of Laboratory Services
MIAMI, FLORIDA 33130-1510
(305)-375-1851

Site : Melreese Golf Course

Address: 1802 NW 37th Avenue

Sampler/Section: Vianey Alvarado / Richard Hilaire / EMES

Deliverer/Section: Vianey Alvarado / Richard Hilaire / EMES

Return Analysis to/Section: Tom Kux / Raymond Gonzalez / EMES

C.C.#: 992511 Permit : AW-284 Phone : 305-372-6700

Sample #: 323461

Date : 6/12/2019 Time : 10:43

Collection Point : MGC_SB-6

Observation/Known Hazards: _____



13 JUN '19 12:34

Clock-In Date/Inspector

Vianey Alvarado / RER

Sign By Inspector

Sign By Inspector

*Sign By Lab Custodian

AD13808

5.3

*Laboratory ID #

*Temp.(°C)
upon Rec.

Return For TCLP / SPLP?

Clock-In Date/Inspector

Date Requested

*Laboratory ID # / Fridge #

*Laboratory ID # / Fridge #

14 JUN '19 8:11

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

For Disposal Date:

See Metal Disposal Log

*Sample Disposal Date

*Extracted By / Date

17 JUN '19 11:14

*Analyzed By / Date

^Regulatory Limits: SDWA __ NPDES __ RCRA __ Chap. 24 __ Other __	
Matrix: H2O __ Soil/Sludge <input checked="" type="checkbox"/> Product __ Layer __ Sewage __ Other __	
Preservation: None <input checked="" type="checkbox"/> Acid __ Base __ Thermal: Iced <input checked="" type="checkbox"/> No Iced __	
Sample Bottle Prepared Lot #: <u>05031865U</u>	Picked-Up Date By Inspector: <u>6/12/2019</u>
Split Sample? Yes __ No <input checked="" type="checkbox"/> Consultant/Lab: _____	
Test(s) Run/Method #	Test(s) Run/Method #
<u>As, Ba, Pb</u>	
	Temp° Iced? <u>5.3</u> (Y) N
	Rep. Sample

Relinquished To: **Contract Lab

Delivered By / Date:

Received By / Date:

Extracted By / Date:

Analyzed By / Date:

Returned By / Date:

LAB RESULTS ATTACHED

Comments

light brown fine grain sand with some small rock fragments

N25° 47' 31", W 80° 13' 45"

* By RER Lab ** By Contract Lab ^ Please specify the regulatory limit range

Revised 02/03/2014



EPA # FL0002
FL CERT E46126

Office of Laboratory Services

Sample Analysis Record

R E R

211 W. Flagler St.
Miami, FL 33130
(305) 375-1851

Metals

Site Description : **MELREESE GOLF COURSE**

Blue Card No : 323461 Collected : 06/13/19 10:43
LIMS ID : AD13808 Received : 06/13/19 12:34
Sampled By : HILAR-RI Matrix : Solid

Metals	Conc.	MDL/PQL	Unit	DF	Extracted	Digested	Analyzed	By
% Moisture	15.34	n/a	%					
Arsenic by 6010-3050B	32.8	1.0 / 1.5 (RL/PQL: 1.2 / 1.8)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:24	MG
Barium by 6010-3050B	13.3	0.3 / 1.2 (RL/PQL: 0.4 / 1.4)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:24	MG
Lead by 6010-3050B	54.9	0.3 / 1.2 (RL/PQL: 0.4 / 1.4)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:24	MG

Analysis Qualifiers / Comments Description

- No Comment

U = Below MDL MDL = Method Detection Limit I = Between MDL and PQL DF = Dilution Factor All analyses are in compliance with NELAP standards.

Date of Issue
6/17/2019

Page 1 of 1 Note : Multiply MDL(or RL) by Dilution Factor (1.0, unless noted otherwise.)

All results being reported under this report apply to the samples analyzed. n/a=Not Applicable

Yin Chen / QA Officer

Results are reported in dry wt. unless otherwise noted. RL= Reporting Limits

If you have any questions please contact the QA Officer at 305-375-1851.

G5U

RUSH

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MIAMI-DADE COUNTY, FLORIDA

EPA # FL00025
FL CERT # E46126

RUSH

LABORATORY ANALYSIS RECORD
ENFORCEMENT

Department of Regulatory and Economic Resources

Environmental Resources Management

Office of Laboratory Services
MIAMI, FLORIDA 33130-1510
(305)-375-1851

Site : Melreese Golf Course

Address : 1802 NW 37th Avenue

Sampler/Section: Vianey Alvarado / Richard Hilaire / EMES

Deliverer/Section: Vianey Alvarado / Richard Hilaire / EMES

Return Analysis to/Section: Tom Kux / Raymond Gonzalez / EMES

C.C.#: 992511 Permit : AW-284 Phone : 305-372-6700

Sample #:

323459



Date : 6/12/2019

Time : 11:18

Collection Point :

MGC_SB-7

Observation/Known Hazards:

13 JUN '19 12:35

AD13814

5.3

Clock-In Date/Inspector

Sign By Inspector

*Sign By Lab Custodian

*Laboratory ID #

*Temp. (°C)
upon Rec.

Return For TCLP / SPLP?

Clock-In Date/Inspector

Date Requested

*Laboratory ID # / Fridge #

*Laboratory ID # / Fridge #

14 JUN '19 8:11

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

For Disposal Date:
See Metal Disposal Log

*Sample Disposal Date

*Extracted By / Date

17 JUN '19 11:14

*Analyzed By / Date

Comments

light brown fine grain sand
N 25° 47' 47", W 80° 15' 38"

* By RER Lab ** By Contract Lab ^ Please specify the regulatory limit range

Revised 02/03/2014

^Regulatory Limits: SDWA ___ NPDES ___ RCRA ___ Chap. 24 ___ Other ___	
Matrix: H2O ___ Soil/Sludge <input checked="" type="checkbox"/> Product ___ Layer ___ Sewage ___ Other ___	
Preservation: None <input checked="" type="checkbox"/> Acid ___ Base ___ Thermal: Iced <input checked="" type="checkbox"/> No Iced ___	
Sample Bottle Prepared Lot #: 050318 G5U	Picked-Up Date By Inspector: 6/12/2019
Split Sample? Yes ___ No <input checked="" type="checkbox"/> Consultant/Lab: _____	
Test(s) Run/Method #	Test(s) Run/Method #
As, Bg, Pb	
	AD13796 Temp° Iced? 5.3 (Y) N
	Rep. Sample

Relinquished To: **Contract Lab

Delivered By / Date:

Received By / Date:

Extracted By / Date:

Analyzed By / Date:

Returned By / Date:

LAB RESULTS ATTACHED

6/17/19



EPA # FL0002
FL CERT E46126

Office of Laboratory Services

Sample Analysis Record

Metals

R E R

211 W. Flagler St.
Miami, FL 33130
(305) 375-1851

Site Description : **MELREESE GOLF COURSE**

Blue Card No : 323459

Collected : 06/13/19 11:18

LIMS ID : AD13814

Received : 06/13/19 12:35

Sampled By : HILAR-RI

Matrix : Solid

Metals	Conc.	MDL/PQL	Unit	DF	Extracted	Digested	Analyzed	By
% Moisture	18.73	n/a	%					
Arsenic by 6010-3050B	14.1	1.0 / 1.5 (RL/PQL: 1.2 / 1.9)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:33	MG
Barium by 6010-3050B	5.2	0.3 / 1.2 (RL/PQL: 0.4 / 1.5)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:33	MG
Lead by 6010-3050B	2.9	0.3 / 1.2 (RL/PQL: 0.4 / 1.5)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:33	MG

Analysis Qualifiers / Comments Description

- No Comment

U = Below MDL MDL = Method Detection Limit I = Between MDL and PQL DF = Dilution Factor All analyses are in compliance with NELAC standards.

Date of Issue
6/17/2019

Page 1 of 1 Note : Multiply MDL(or RL) by Dilution Factor (1.0, unless noted otherwise.)

All results being reported under this report apply to the samples analyzed. n/a=Not Applicable

Yin Chen / QA Officer

Results are reported in dry wt. unless otherwise noted. RL= Reporting Limits

If you have any questions please contact the QA Officer at 305-375-1851.

GSU

RUSH

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MIAMI-DADE COUNTY, FLORIDA

EPA # FL00025
FL CERT # E46126

RUSH

LABORATORY ANALYSIS RECORD
ENFORCEMENT

Department of Regulatory and Economic Resources

Environmental Resources Management

Office of Laboratory Services
MIAMI, FLORIDA 33130-1510
(305)-375-1851Site : Melreese Golf CourseAddress : 1802 NW 37th AvenueSampler/Section: Vianey Alvarado / Richard Hilaire / EMESDeliverer/Section: Vianey Alvarado / Richard Hilaire / EMESReturn Analysis to/Section: Tom Kux / Raymond Gonzalez / EMESC.C.#: 992511 Permit : AW-284 Phone : 305-372-6700Sample # : 323457Date : 6/12/2019 Time : 11:31Collection Point : MGC_SB-8

Observation/Known Hazards:

13 JUN '19 12:33

AD13796

5.3

Clock-In Date/Inspector

Sign By Inspector

*Sign By Lab Custodian

*Laboratory ID #

*Temp.(°C)
upon Rec.

Return For TCLP / SPLP?

Clock-In Date/Inspector

Date Requested

*Laboratory ID # / Fridge #

*Laboratory ID # / Fridge #

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Sample Disposal Date

For Disposal Date:
See Metal Disposal Log

*Sample Disposal Date

*Extracted By / Date

17 JUN '19 11:14

*Analyzed By / Date

^Regulatory Limits: SDWA __ NPDES __ RCRA __ Chap. 24 __ Other __	
Matrix: H2O __ Soil/Sludge <input checked="" type="checkbox"/> Product __ Layer __ Sewage __ Other __	
Preservation: None <input checked="" type="checkbox"/> Acid __ Base __ Thermal: Iced <input checked="" type="checkbox"/> No Iced __	
Sample Bottle	Picked-Up Date
Prepared Lot #: <u>050318 GSU</u>	By Inspector: <u>6/12/2019</u>
Split Sample? Yes __ No <input checked="" type="checkbox"/> Consultant/Lab: _____	
Test(s) Run/Method #	Test(s) Run/Method #
<u>As, Ba, Pb</u>	

Relinquished To: **Contract Lab

Delivered By / Date:

Received By / Date:

Extracted By / Date:

Analyzed By / Date:

Returned By / Date:

LAB RESULTS ATTACHED

Comments

Brown fine grain sand with some rock fragments.
N25° 47' 21" , W 80° 15' 31"

* By RER Lab ** By Contract Lab ^ Please specify the regulatory limit range

Revised 02/03/2014



EPA # FL0002
FL CERT E46126

Office of Laboratory Services

Sample Analysis Record

Metals

R E R

211 W. Flagler St.
Miami, FL 33130
(305) 375-1851

Site Description : **MELREESE GOLF COURSE**

Blue Card No : 323457 Collected : 06/13/19 11:31
LIMS ID : AD13796 Received : 06/13/19 12:33
Sampled By : HILAR-RI Matrix : Solid

Metals	Conc.	MDL/PQL	Unit	DF	Extracted	Digested	Analyzed	By
% Moisture	9.55	n/a	%					
Arsenic by 6010-3050B	56.2	1.0 / 1.5 (RL/PQL: 1.1 / 1.7)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:10	MG
Comment : C14								
Barium by 6010-3050B	15.3 J	0.3 / 1.2 (RL/PQL: 0.3 / 1.3)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:10	MG
Comment : C14, QJ11								
Lead by 6010-3050B	89.2	0.3 / 1.2 (RL/PQL: 0.3 / 1.3)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:10	MG
Comment : C14, QJ15								

Analysis Qualifiers / Comments Description

QJ15	Estimated value. Matrix spike recovery was outside laboratory control limits due to a parent sample concentration is notably higher than the spike level.
QJ11	Estimated value. Matrix spike recovery is below QC limits. Results for this analyte in associated samples may be biased low. Batch accepted based on Laboratory Fortified Blank recovery.
C14	Results confirmed by second analysis.

U = Below MDL MDL = Method Detection Limit I = Between MDL and PQL DF = Dilution Factor All analyses are in compliance with NELAC standards.

Date of Issue
6/17/2019

Page 1 of 1 Note : Multiply MDL(or RL) by Dilution Factor (1.0, unless noted otherwise.)
All results being reported under this report apply to the samples analyzed. n/a=Not Applicable

Yin Chen / QA Officer

Results are reported in dry wt. unless otherwise noted. RL= Reporting Limits

If you have any questions please contact the QA Officer at 305-375-1851.

GSU

RUSH

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MIAMI-DADE COUNTY, FLORIDA



EPA # FL00025
FL CERT # E46126

RUSH

Department of Regulatory and Economic Resources

Environmental Resources Management

Office of Laboratory Services
MIAMI, FLORIDA 33130-1510
(305)-375-1851

LABORATORY ANALYSIS RECORD
ENFORCEMENT

Site : Melreese Golf Course
Address: 1802 NW 37th Avenue
Sampler/Section: Vianey Alvarado / Richard Hilaire / EMES
Deliverer/Section: Vianey Alvarado / Richard Hilaire / EMES
Return Analysis to/Section: Tom Kux / Raymond Gonzalez / EMES
C.C.#: 992511 Permit: AW-284 Phone: 305-372-6700

Sample #: 323455
Date: 6/12/2019 Time: 10:30
Collection Point: MGC_SB-9
Observation/Known Hazards: _____



13 JUN '19 12:34

AD13806

Clock-In Date/Inspector: 13 JUN '19 12:34 Sign By Inspector: [Signature] *Sign By Lab Custodian: [Signature] *Laboratory ID #: AD13806 *Temp. (°C) upon Rec.: 5.3

Return For TCLP / SPLP?

Clock-In Date/Inspector

Date Requested

*Laboratory ID # / Fridge #

*Laboratory ID # / Fridge #

14 JUN '19 8:10

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

For Disposal Date:

See Metal Disposal Log

*Sample Disposal Date

*Extracted By / Date

17 JUN '19 11:14

*Analyzed By / Date

Comments

light brown fine grain sand w/ small fragments
N25° 47' 37" , W80° 15' 40"

^Regulatory Limits: SDWA NPDES RCRA Chap. 24 Other	
Matrix: H2O Soil/Sludge Product Layer Sewage Other	
Preservation: None Acid Base Thermal: Iced No Iced	
Sample Bottle Prepared Lot #: 050318 GSU	Picked-Up Date By Inspector: 6/12/2019
Split Sample? Yes No Consultant/Lab:	
Test(s) Run/Method #	Test(s) Run/Method #
As, Ba, Pb	Temp° Iced?
	AD13796 5.3 (Y) N
	Rep. Sample

Relinquished To: **Contract Lab

Delivered By / Date:

Received By / Date:

Extracted By / Date:

Analyzed By / Date:

Returned By / Date:

LAB RESULTS ATTACHED

6/17/19



EPA # FL0002
FL CERT E46126

Office of Laboratory Services

Sample Analysis Record

R E R

211 W. Flagler St.
Miami, FL 33130
(305) 375-1851

Metals

Site Description : **MELREESE GOLF COURSE**

Blue Card No : 323455 Collected : 06/13/19 10:30
LIMS ID : AD13806 Received : 06/13/19 12:34
Sampled By : HILAR-RI Matrix : Solid

Metals	Conc.	MDL/PQL	Unit	DF	Extracted	Digested	Analyzed	By
% Moisture	15.34	n/a	%					
Arsenic by 6010-3050B	9.4	1.0 / 1.5 (RL/PQL: 1.2 / 1.8)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:22	MG
Barium by 6010-3050B	8.8	0.3 / 1.2 (RL/PQL: 0.4 / 1.4)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:22	MG
Lead by 6010-3050B	27.4	0.3 / 1.2 (RL/PQL: 0.4 / 1.4)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:22	MG

Analysis Qualifiers / Comments Description

- No Comment

U = Below MDL MDL = Method Detection Limit I = Between MDL and PQL DF = Dilution Factor All analyses are in compliance with NELAC standards.

Date of Issue
6/17/2019

Page 1 of 1 Note : Multiply MDL(or RL) by Dilution Factor (1.0, unless noted otherwise.)

All results being reported under this report apply to the samples analyzed. n/a=Not Applicable

Yin Chen / QA Officer

Results are reported in dry wt. unless otherwise noted. RL= Reporting Limits

If you have any questions please contact the QA Officer at 305-375-1851.

Gsu

RUSH

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MIAMI-DADE COUNTY, FLORIDA

EPA # FL00025
FL CERT # E46126

RUSH

LABORATORY ANALYSIS RECORD
ENFORCEMENT

Department of Regulatory and Economic Resources

Environmental Resources Management

Office of Laboratory Services

MIAMI, FLORIDA 33130-1510

(305)-375-1851

Site : Melreese Golf CourseAddress: 1802 NW 37th AvenueSampler/Section: Vianey Alvarado / Richard Hilaire / EMESDeliverer/Section: Vianey Alvarado / Richard Hilaire / EMESReturn Analysis to/Section: Tom Kux / Raymond Gonzalez / EMESC.C.#: 992511 Permit : AW-284 Phone : 305-372-6700Sample #: 323453Date : 6/12/2019 Time : 10:17

Collection Point :

MGC_SB-10

Observation/Known Hazards:



13 JUN '19 12:34

AD13804

5.3

Clock-In Date/Inspector

Sign By Inspector

*Sign By Lab Custodian

*Laboratory ID #

*Temp.(°C)
upon Rec.

Return For TCLP / SPLP?

Clock-In Date/Inspector

Date Requested

*Laboratory ID # / Fridge #

*Laboratory ID # / Fridge #

4 JUN '19 8:10
*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

For Disposal Date:
See Metal Disposal Log

*Sample Disposal Date

*Extracted By / Date

17 JUN '19 11:14

*Analyzed By / Date

^Regulatory Limits: SDWA NPDES RCRA Chap. 24 Other	
Matrix: H2O Soil/Sludge <input checked="" type="checkbox"/> Product Layer Sewage Other	
Preservation: None <input checked="" type="checkbox"/> Acid Base Thermal: Iced <input checked="" type="checkbox"/> No Iced	
Sample Bottle Prepared Lot #: 0503186SU	Picked-Up Date By Inspector: 6/12/2019
Split Sample? Yes No <input checked="" type="checkbox"/> Consultant/Lab:	
Test(s) Run/Method #	Test(s) Run/Method #
As, Ba, Pb	
	Temp° Iced? <input checked="" type="checkbox"/> N
	AD13796 Rep. Sample 5.3

Relinquished To: **Contract Lab

Delivered By / Date:

Received By / Date:

Extracted By / Date:

Analyzed By / Date:

Returned By / Date:

LAB RESULTS ATTACHED

55
6/17/19Comments Fine grain Soil, 0'-4" x 4'-6" light gray silt w/ shell fragments & glass
N 25° 47' 30", W 80° 15' 41"

* By RER Lab ** By Contract Lab ^ Please specify the regulatory limit range

Revised 02/03/2014



EPA # FL0002
FL CERT E46126

Office of Laboratory Services

Sample Analysis Record

R E R

211 W. Flagler St.
Miami, FL 33130
(305) 375-1851

Metals

Site Description : **MELREESE GOLF COURSE**

Blue Card No : 323453 Collected : 06/13/19 10:17

LIMS ID : AD13804 Received : 06/13/19 12:34

Sampled By : HILAR-RI Matrix : Solid

Metals	Conc.	MDL/PQL	Unit	DF	Extracted	Digested	Analyzed	By
% Moisture	26.72	n/a	%					
Arsenic by 6010-3050B	10.3	1.0 / 1.5 (RL/PQL: 1.4 / 2.1)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:20	MG
Barium by 6010-3050B	9.3	0.3 / 1.2 (RL/PQL: 0.4 / 1.6)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:20	MG
Lead by 6010-3050B	4.1	0.3 / 1.2 (RL/PQL: 0.4 / 1.6)	mg/Kg		n/a	06/14/19 9:45	06/17/19 10:20	MG

Analysis Qualifiers / Comments Description

- No Comment

U = Below MDL MDL = Method Detection Limit I = Between MDL and PQL DF = Dilution Factor All analyses are in compliance with NELAP standards.

Date of Issue
6/17/2019

Page 1 of 1 Note : Multiply MDL(or RL) by Dilution Factor (1.0, unless noted otherwise.)

All results being reported under this report apply to the samples analyzed. n/a=Not Applicable

Yin Chen / QA Officer

Results are reported in dry wt. unless otherwise noted. RL= Reporting Limits

If you have any questions please contact the QA Officer at 305-375-1851.

July 02, 2019

Yin Chen
Department of Regulatory and Economic
Resources (RER)
211 West Flagler Street
Miami, FL 33128

RE: Project: 0136_E
Pace Project No.: 35475254

Dear Yin Chen:

Enclosed are the analytical results for sample(s) received by the laboratory on June 14, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Terrence Anderson
terrence.anderson@pacelabs.com
954-582-4300
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

CERTIFICATIONS

Project: 0136_E
Pace Project No.: 35475254

Minnesota Certification IDs

1700 Elm Street SE, Minneapolis, MN 55414-2485
A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
CNMI Saipan Certification #: MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Guam EPA Certification #: MN00064
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: 03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Massachusetts Certification #: M-MN064
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137

Minnesota Dept of Ag Certification #: via MN 027-053-137
Minnesota Petrofund Certification #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #: 74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 0136_E
Pace Project No.: 35475254

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35475254001	AD13815 323458	Solid	06/12/19 11:18	06/14/19 16:20
35475254002	AD13813 323462	Solid	06/12/19 11:06	06/14/19 16:20
35475254003	AD13811 323448	Solid	06/12/19 10:53	06/14/19 16:20
35475254004	AD13809 323460	Solid	06/12/19 10:43	06/14/19 16:20
35475254005	AD13807 323454	Solid	06/12/19 10:30	06/14/19 16:20
35475254006	AD13805 323452	Solid	06/12/19 10:17	06/14/19 16:20
35475254007	AD13803 323446	Solid	06/12/19 10:05	06/14/19 16:20
35475254008	AD13801 323466	Solid	06/12/19 09:53	06/14/19 16:20
35475254009	AD13799 323464	Solid	06/12/19 09:38	06/14/19 16:20
35475254010	AD13797 323456	Solid	06/12/19 11:31	06/14/19 16:20

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 0136_E
Pace Project No.: 35475254

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35475254001	AD13815 323458	ASTM D2974	JDL	1	PASI-M
35475254002	AD13813 323462	ASTM D2974	JDL	1	PASI-M
35475254003	AD13811 323448	ASTM D2974	JDL	1	PASI-M
35475254004	AD13809 323460	ASTM D2974	JDL	1	PASI-M
35475254005	AD13807 323454	ASTM D2974	JDL	1	PASI-M
35475254006	AD13805 323452	ASTM D2974	JDL	1	PASI-M
35475254007	AD13803 323446	ASTM D2974	JDL	1	PASI-M
35475254008	AD13801 323466	ASTM D2974	JDL	1	PASI-M
35475254009	AD13799 323464	ASTM D2974	JDL	1	PASI-M
35475254010	AD13797 323456	ASTM D2974	JDL	1	PASI-M

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project:
Pace Project No.:

Method:
Description:
Client:
Date:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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ANALYTICAL RESULTS

Project: 0136_E
Pace Project No.: 35475254

Sample: AD13815 323458 Lab ID: 35475254001 Collected: 06/12/19 11:18 Received: 06/14/19 16:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974		Analytical Method: ASTM D2974							
Percent Moisture	19.2	%	0.10	0.10	1		06/27/19 17:49		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 0136_E
Pace Project No.: 35475254

Sample: AD13813 323462 Lab ID: 35475254002 Collected: 06/12/19 11:06 Received: 06/14/19 16:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974		Analytical Method: ASTM D2974							
Percent Moisture	18.6	%	0.10	0.10	1		06/27/19 17:49		

REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

ANALYTICAL RESULTS

Project: 0136_E
Pace Project No.: 35475254

Sample: AD13811 323448 Lab ID: 35475254003 Collected: 06/12/19 10:53 Received: 06/14/19 16:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974 Analytical Method: ASTM D2974									
Percent Moisture	18.9	%	0.10	0.10	1		06/27/19 17:50		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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ANALYTICAL RESULTS

Project: 0136_E
Pace Project No.: 35475254

Sample: AD13809 323460 Lab ID: 35475254004 Collected: 06/12/19 10:43 Received: 06/14/19 16:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974									
Analytical Method: ASTM D2974									
Percent Moisture	16.2	%	0.10	0.10	1		06/27/19 17:50		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 0136_E
Pace Project No.: 35475254

Sample: AD13807 323454 Lab ID: 35475254005 Collected: 06/12/19 10:30 Received: 06/14/19 16:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974									
Analytical Method: ASTM D2974									
Percent Moisture	16.3	%	0.10	0.10	1		06/27/19 17:50		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 0136_E
Pace Project No.: 35475254

Sample: AD13805 323452 Lab ID: 35475254006 Collected: 06/12/19 10:17 Received: 06/14/19 16:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974									
Analytical Method: ASTM D2974									
Percent Moisture	27.3	%	0.10	0.10	1		06/27/19 17:50		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 0136_E
Pace Project No.: 35475254

Sample: AD13803 323446 Lab ID: 35475254007 Collected: 06/12/19 10:05 Received: 06/14/19 16:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974 Analytical Method: ASTM D2974									
Percent Moisture	13.0	%	0.10	0.10	1		06/27/19 17:51		

REPORT OF LABORATORY ANALYSIS

ANALYTICAL RESULTS

Project: 0136_E
Pace Project No.: 35475254

Sample: AD13801 323466 Lab ID: 35475254008 Collected: 06/12/19 09:53 Received: 06/14/19 16:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974 Analytical Method: ASTM D2974									
Percent Moisture	24.1	%	0.10	0.10	1		06/27/19 17:51		

REPORT OF LABORATORY ANALYSIS

ANALYTICAL RESULTS

Project: 0136_E
Pace Project No.: 35475254

Sample: AD13799 323464 Lab ID: 35475254009 Collected: 06/12/19 09:38 Received: 06/14/19 16:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974 Analytical Method: ASTM D2974									
Percent Moisture	26.8	%	0.10	0.10	1		06/27/19 17:51		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 0136_E
Pace Project No.: 35475254

Sample: AD13797 323456 Lab ID: 35475254010 Collected: 06/12/19 11:31 Received: 06/14/19 16:20 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight / %M by ASTM D2974		Analytical Method: ASTM D2974							
Percent Moisture	9.1	%	0.10	0.10	1		06/27/19 17:51		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 0136_E
Pace Project No.: 35475254

QC Batch:	616028	Analysis Method:	ASTM D2974
QC Batch Method:	ASTM D2974	Analysis Description:	Dry Weight / %M by ASTM D2974
Associated Lab Samples:	35475254001, 35475254002, 35475254003, 35475254004, 35475254005, 35475254006, 35475254007, 35475254008, 35475254009, 35475254010		

SAMPLE DUPLICATE: 3327716

Parameter	Units	35475254001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	19.2	18.1	6	30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

QUALIFIERS

Project: 0136_E
Pace Project No.: 35475254

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
TNTC - Too Numerous To Count
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 0136_E
Pace Project No.: 35475254

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35475254001	AD13815 323458	ASTM D2974	616028		
35475254002	AD13813 323462	ASTM D2974	616028		
35475254003	AD13811 323448	ASTM D2974	616028		
35475254004	AD13809 323460	ASTM D2974	616028		
35475254005	AD13807 323454	ASTM D2974	616028		
35475254006	AD13805 323452	ASTM D2974	616028		
35475254007	AD13803 323446	ASTM D2974	616028		
35475254008	AD13801 323466	ASTM D2974	616028		
35475254009	AD13799 323464	ASTM D2974	616028		
35475254010	AD13797 323456	ASTM D2974	616028		

REPORT OF LABORATORY ANALYSIS

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WO#: 35475254



35475254

Work Order # 0136_E

Reference : Bid No FB-01056

Date: June 14, 2019

From: Yin Chen, Lab Manager
 RER Laboratory
 211 West Flagler Street
 Miami, FL 33130

To: PACE ANALYTICAL
 P.O. Box 810275
 Boca Raton, FL 33481-0275
 (561) 447-7373

Authorized By :

(Must be signed by Lab Manager)

Picked Up By :

Please submit ADaPT-qualified EDD

Note: Please refer to the COCs for the detailed sample information.

If there are any discrepancies with COC and the work order, please contact the RER Lab immediately at 305-375-1851.

LABORATORY ANALYSIS REQUEST

	Cost Code	Sample #	Collection Point	Matrix	Parameter	Method #
1.	992511	323458		SOIL	Dioxins and Furans	8290
2.	992511	323462		SOIL	Dioxins and Furans	8290
3.	992511	323448		SOIL	Dioxins and Furans	8290
4.	992511	323460		SOIL	Dioxins and Furans	8290
5.	992511	323454		SOIL	Dioxins and Furans	8290
6.	992511	323452		SOIL	Dioxins and Furans	8290
7.	992511	323446		SOIL	Dioxins and Furans	8290
8.	992511	323466		SOIL	Dioxins and Furans	8290
9.	992511	323464		SOIL	Dioxins and Furans	8290
10.	992511	323456		SOIL	Dioxins and Furans	8290

REV'D BY LAB: [Signature] 06/14/19 1620 [Signature] 06/11/19 D.C.

For Internal Use Only

WORK ORDER REVIEW & AUTHORIZATION

By (Initial/Date) : _____

Document Check List

- ☐ Copy of COC
☐ Signed Work Order
☐ Communication Records

Report Review Check List

- ☐ Sample Log-in Correct
☐ Analysis Performed and Data Reported
☐ QC Information and COC Included

Final Report Check List

- ☐ PDF Report Issued
☐ EDD Issued
☐ Revised Report Issued

Notes: _____

Post Check : ☐ Samples Logged Out ☐ COC Scanned ☐ Original COC Returned

Initial/Date: _____

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RUSH

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MIAMI-DADE COUNTY, FLORIDA

EPA # FL00025
FL CERT # E46126

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LABORATORY ANALYSIS RECORD
ENFORCEMENT

Department of Regulatory and Economic Resources

Environmental Resources Management

Office of Laboratory Services

MIAMI, FLORIDA 33130-1510

(305)-375-1851

Site : Melreese Golf CourseAddress : 1802 NW 37th AvenueSampler/Section: Vianey Alvarado / Richard Hilaire / EMESDeliverer/Section: Vianey Alvarado / Richard Hilaire / EMESReturn Analysis to/Section: Tom Kux / Raymond Gonzalez / EMESC.C.#: 992511 Permit : AW-284 Phone : 305-372-6700Sample # : 323458Date : 6/12/2019 Time : 11:18

Collection Point :

MGC_SB-7

Observation/Known Hazards:

13 JUN '19 12:35

Clock-In Date/Inspector

Sign By Inspector

*Sign By Lab Custodian

AD13815

*Laboratory ID #

*Temp. (°C)
upon Rec.

Return For TCLP / SPLP?

Clock-In Date/Inspector

Date Requested

*Laboratory ID # / Fridge #

*Laboratory ID # / Fridge #

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Sample Disposal Date

*Extracted By / Date

*Analyzed By / Date

Comments

light brown fine grain sand
N25° 47' 17", W80° 15' 38"

* By RER Lab ** By Contract Lab ^ Please specify the regulatory limit range

^Regulatory Limits: SDWA __ NPDES __ RCRA __ Chap. 24 __ Other __	
Matrix: H2O __ Soil/Sludge <input checked="" type="checkbox"/> Product __ Layer __ Sewage __ Other __	
Preservation: None <input checked="" type="checkbox"/> Acid __ Base __ Thermal: Iced <input checked="" type="checkbox"/> No Iced __	
Sample Bottle	Picked-Up Date
Prepared Lot #: <u>011419-1 GK</u>	By Inspector: <u>6/12/2019</u>
Split Sample? Yes __ No <input checked="" type="checkbox"/> Consultant/Lab: _____	
Test(s) Run/Method #	Test(s) Run/Method #
<u>DIOXIN (WHO 2005 TEF)</u>	
	Temp° <u>5.3</u> Iced? <u>(X) N</u>
	Rep. Sample <u>AD13796</u>

Relinquished To: **Contract Lab J-S 60-6161 MIB DTDelivered By / Date: AReceived By / Date: 06/14/19 1620 OGC

Extracted By / Date: _____

Analyzed By / Date: _____

Returned By / Date: _____

WO#: 35475254

PM: TGA

Due Date: 06/25/19

3/2014

CLIENT: 36-DERM

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MIAMI-DADE COUNTY, FLORIDA

EPA # FL00025
FL CERT # E46126

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LABORATORY ANALYSIS RECORD
ENFORCEMENT

Department of Regulatory and Economic Resources

Environmental Resources Management

Office of Laboratory Services

MIAMI, FLORIDA 33130-1510

(305)-375-1851

Site : Melreese Golf CourseAddress: 1802 NW 37th AvenueSampler/Section: Vianey Alvarado / Richard Hilaire / EMESDeliverer/Section: Vianey Alvarado / Richard Hilaire / EMESReturn Analysis to/Section: Tom Kux / Raymond Gonzalez / EMESC.C.#: 992511 Permit : AW-284 Phone : 305-372-6700Sample # : 323462Date : 6/12/2019 Time : 11:06Collection Point : MGC_SB-5

Observation/Known Hazards:

13 JUN '19 12:34

Clock-In Date/Inspector

Sign By Inspector

*Sign By Lab Custodian

AD13813

*Laboratory ID #

*Temp.(°C)
upon Rec.

Return For TCLP / SPLP?

Clock-In Date/Inspector

Date Requested

*Laboratory ID # / Fridge #

*Laboratory ID # / Fridge #

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Sample Disposal Date

*Extracted By / Date

*Analyzed By / Date

Comments

light tan fine grain sand with some shell fragments + glass
N 23° 47' 22", W 80° 15' 45"

* By RER Lab ** By Contract Lab ^ Please specify the regulatory limit range

^Regulatory Limits: SDWA <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Chap. 24 <input type="checkbox"/> Other <input type="checkbox"/>	
Matrix: H2O <input type="checkbox"/> Soil/Sludge <input checked="" type="checkbox"/> Product <input type="checkbox"/> Layer <input type="checkbox"/> Sewage <input type="checkbox"/> Other <input type="checkbox"/>	
Preservation: None <input checked="" type="checkbox"/> Acid <input type="checkbox"/> Base <input type="checkbox"/> Thermal: Iced <input checked="" type="checkbox"/> No Iced <input type="checkbox"/>	
Sample Bottle	Picked-Up Date
Prepared Lot #: <u>011419-16K</u>	By Inspector: <u>6/12/2019</u>
Split Sample? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Consultant/Lab: <u></u>	
Test(s) Run/Method #	Test(s) Run/Method #
<u>DIOXIN (WHO 2005 TEF)</u>	
	Temp° Iced? <input type="checkbox"/>
	<u>AD13796</u> <u>5.3</u> (Y) N
	Rep. Sample

Relinquished To: **Contract Lab J.S.

Delivered By / Date:

Received By / Date:

Extracted By / Date:

Analyzed By / Date:

Returned By / Date:

WO#: 35475254

PM: TGA

Due Date: 06/25/19

CLIENT: 36-DERM

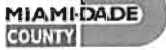
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MIAMI-DADE COUNTY, FLORIDA

EPA # FL00025
FL CERT # E46126

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LABORATORY ANALYSIS RECORD
ENFORCEMENT

Department of Regulatory and Economic Resources

Environmental Resources Management

Office of Laboratory Services
MIAMI, FLORIDA 33130-1510
(305)-375-1851

Melreese Golf Course

Site :

Address: 1802 NW 37th Avenue

Sample # :

323448



Sampler/Section: Vianey Alvarado / Richard Hilaire / EMES

Date: 6/12/2019

Time: 10:53

Deliverer/Section: Vianey Alvarado / Richard Hilaire / EMES

Collection Point :

Return Analysis to/Section: Tom Kux / Raymond Gonzalez / EMES

MGC_SB-1

C.C.#: 992511 Permit: AW-284 Phone: 305-372-6700

Observation/Known Hazards:

13 JUN '19 12:34

AD13811

5.3

Clock-In Date/Inspector

Sign By Inspector

*Sign By Lab Custodian

*Laboratory ID #

*Temp. (°C)
upon Rec.

Return For TCLP / SPLP?

Clock-In Date/Inspector

Date Requested

*Laboratory ID # / Fridge #

*Laboratory ID # / Fridge #

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Sample Disposal Date

*Extracted By / Date

*Analyzed By / Date

^Regulatory Limits: SDWA __ NPDES __ RCRA __ Chap. 24 __ Other __

Matrix: H2O __ Soil/Sludge ☒ Product __ Layer __ Sewage __ Other __Preservation: None ☒ Acid __ Base __ Thermal: Iced ☒ No Iced __

Sample Bottle

Prepared Lot #: 011419-1GK

Picked-Up Date

By Inspector: 6/12/2019

Split Sample? Yes __ No ☒ Consultant/Lab: __

Test(s) Run/Method #

Test(s) Run/Method #

Dioxin (WHO 2005 TEF) TEF VA

Temp° Iced?

AD13796
Rep. Sample

5.3 (Y) N

Relinquished To: **Contract Lab

Delivered By / Date:

Received By / Date:

Extracted By / Date:

Analyzed By / Date:

Returned By / Date:

Comments light gray fine soil with shell fragments

N23° 47' 24", W 80° 15' 49"

* By RER Lab ** By Contract Lab ^ Please specify the regulatory limit range

WO#: 35475254

PM: TGA

Due Date: 06/25/19

CLIENT: 36-DERM

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MIAMI-DADE COUNTY, FLORIDA

EPA # FL00025
FL CERT # E46126

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LABORATORY ANALYSIS RECORD
ENFORCEMENT

Department of Regulatory and Economic Resources

Environmental Resources Management

Office of Laboratory Services
MIAMI, FLORIDA 33130-1510
(305)-375-1851Site : Melreese Golf CourseAddress: 1802 NW 37th AvenueSampler/Section: Vianey Alvarado / Richard Hilaire / EMESDeliverer/Section: Vianey Alvarado / Richard Hilaire / EMESReturn Analysis to/Section: Tom Kux / Raymond Gonzalez / EMESC.C.#: 992511 Permit : AW-284 Phone : 305-372-6700

Sample # :

323460

Date : 6/12/2019 Time : 10:43

Collection Point :

MGC_SB-6

Observation/Known Hazards:

13 JUN '19 12:34

AD13809

Clock-In Date/Inspector

Sign By Inspector

*Sign By Lab Custodian

*Laboratory ID #

*Temp. (°C)
upon Rec.

Return For TCLP / SPLP?

Clock-In Date/Inspector

Date Requested

*Laboratory ID # / Fridge #

*Laboratory ID # / Fridge #

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Sample Disposal Date

*Extracted By / Date

*Analyzed By / Date

^Regulatory Limits: SDWA ☐ NPDES ☐ RCRA ☐ Chap. 24 ☐ Other ☐Matrix: H2O ☐ Soil/Sludge ☒ Product ☐ Layer ☐ Sewage ☐ Other ☐Preservation: None ☒ Acid ☐ Base ☐ Thermal: Iced ☒ No Iced ☐

Sample Bottle

Prepared Lot #: 011419-1GK

Picked-Up Date

By Inspector: 6/12/2019Split Sample? Yes ☐ No ☒ Consultant/Lab:

Test(s) Run/Method #

Test(s) Run/Method #

DIOXIN (WHO 2005 TEF)

Temp° Iced?

AD13796
Rep. Sample

5.3

(Y) N

Relinquished To: **Contract Lab

Delivered By / Date:

Received By / Date:

Extracted By / Date:

Analyzed By / Date:

Returned By / Date:

Comments

light brown fine grain sand with some small rock fragments
N 25° 47' 31", W 80° 15' 45"

* By RER Lab ** By Contract Lab ^ Please specify the regulatory limit range

WO#: 35475254

PM: TGA

Due Date: 06/25/19

CLIENT: 36-DERM

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EPA # FL00025
FL CERT # E46126

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LABORATORY ANALYSIS RECORD
ENFORCEMENT

Department of Regulatory and Economic Resources

Environmental Resources Management

Office of Laboratory Services
MIAMI, FLORIDA 33130-1510
(305)-375-1851Site : Melreese Golf CourseAddress: 1802 NW 37th AvenueSampler/Section: Vianey Alvarado / Richard Hilaire / EMESDeliverer/Section: Vianey Alvarado / Richard Hilaire / EMESReturn Analysis to/Section: Tom Kux / Raymond Gonzalez / EMESC.C.#: 992511 Permit: AW-284 Phone: 305-372-6700Sample #: 323454Date: 6/12/2019 Time: 10:30Collection Point: MGC_SB-9

Observation/Known Hazards:

13 JUN '19 12:34

AD13807

5.3

Clock-In Date/Inspector

Sign By Inspector

*Sign By Lab Custodian

*Laboratory ID #

*Temp. (°C)
upon Rec.

Return For TCLP / SPLP?

Clock-In Date/Inspector

Date Requested

*Laboratory ID # / Fridge #

*Laboratory ID # / Fridge #

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Sample Disposal Date

*Extracted By / Date

*Analyzed By / Date

^Regulatory Limits: SDWA __ NPDES __ RCRA __ Chap. 24 __ Other __

Matrix: H2O __ Soil/Sludge ☒ Product __ Layer __ Sewage __ Other __Preservation: None ☒ Acid __ Base __ Thermal: Iced ☒ No Iced __

Sample Bottle

Prepared Lot #: 011419-1615

Picked-Up Date

By Inspector: 6/12/2019Split Sample? Yes __ No ☒ Consultant/Lab:

Test(s) Run/Method #

Test(s) Run/Method #

DIOXIN (WHO 2005 TEF)

Temp° Iced? AD13796
Rep. Sample

5.3 (Y) N

Relinquished To: **Contract Lab J-SDelivered By / Date: Received By / Date: 06/14/19 1620 OKExtracted By / Date: Analyzed By / Date: Returned By / Date: Comments light brown fine grain sand w/ small rock fragmentsN25° 47' 37", W 80° 15' 40"

* By RER Lab ** By Contract Lab ^ Please specify the regulatory limit range

WO#: 35475254

PM: TGA

Due Date: 06/25/19

CLIENT: 36-DERM

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MIAMI-DADE COUNTY, FLORIDA

EPA # FL00025
FL CERT # E46126

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LABORATORY ANALYSIS RECORD
ENFORCEMENT

Department of Regulatory and Economic Resources

Environmental Resources Management

Office of Laboratory Services
MIAMI, FLORIDA 33130-1510
(305)-375-1851

Site : Melreese Golf Course

Address: 1802 NW 37th Avenue

Sampler/Section: Vianey Alvarado / Richard Hilaire / EMES

Deliverer/Section: Vianey Alvarado / Richard Hilaire / EMES

Return Analysis to/Section: Tom Kux / Raymond Gonzalez / EMES

C.C.#: 992511 Permit : AW-284 Phone : 305-372-6700

Sample # : 323452

Date : 6/12/2019 Time : 10:17

Collection Point : MGC_SB-10

Observation/Known Hazards:



13 JUN '19 12:34

AD13805

5.3

Clock-In Date/Inspector

Sig By Inspector

*Sign By Lab Custodian

*Laboratory ID #

*Temp. (°C)
upon Rec.

Return For TCLP / SPLP?

Clock-In Date/Inspector

Date Requested

*Laboratory ID # / Fridge #

*Laboratory ID # / Fridge #

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Sample Disposal Date

*Extracted By / Date

*Analyzed By / Date

^Regulatory Limits: SDWA NPDES RCRA Chap. 24 Other

Matrix: H2O Soil/Sludge ☒ Product Layer Sewage Other

Preservation: None ☒ Acid Base Thermal: Iced ☒ No Iced

Sample Bottle Prepared Lot #: 011419-1GK Picked-Up Date By Inspector: 6/12/2019

Split Sample? Yes No ☒ Consultant/Lab:

Test(s) Run/Method #

Test(s) Run/Method #

DIOXIN (WHD 2003 TEF)

Temp° Iced?

AD13716
Rep. Sample

5.3 (Y) N

Relinquished To: **Contract Lab

Delivered By / Date:

Received By / Date:

Extracted By / Date:

Analyzed By / Date:

Returned By / Date:

Comments Fine grain soil, 0-4" & 4-6" light gray silt w/ shell fragments & 9/25N25° 47' 30", W 80° 15' 41"

* By RER Lab ** By Contract Lab ^ Please specify the regulatory limit range

WO#: 35475254

PM: TGA

Due Date: 06/25/19

CLIENT: 36-DERM

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RUSH

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MIAMI-DADE COUNTY, FLORIDA


 EPA # FL00025
 FL CERT # E46126

RUSH

 LABORATORY ANALYSIS RECORD
 ENFORCEMENT

Department of Regulatory and Economic Resources

Environmental Resources Management

 Office of Laboratory Services
 MIAMI, FLORIDA 33130-1510
 (305)-375-1851

Melreese Golf Course

323446



Site :

Address: 1802 NW 37th Avenue

Sample # :

Sampler/Section: Vianey Alvarado / Richard Hilaire / EMES

Date : 6/12/2019 Time : 10:05

Deliverer/Section: Vianey Alvarado / Richard Hilaire / EMES

Collection Point :

Return Analysis to/Section: Tom Kux / Raymond Gonzalez / EMES

MGC_SB-2

C.C.#: 992511 Permit : AW-284 Phone : 305-372-6700

Observation/Known Hazards:

13 JUN '19 12:34

AD13803

5.3

Clock-In Date/Inspector

Sign By Inspector

*Sign By Lab Custodian

*Laboratory ID #

*Temp. (°C)
upon Rec.

Return For TCLP / SPLP?

Clock-In Date/Inspector

Date Requested

*Laboratory ID # / Fridge #

*Laboratory ID # / Fridge #

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Sample Disposal Date

*Extracted By / Date

*Analyzed By / Date

 ^Regulatory Limits: SDWA NPDES RCRA Chap. 24 Other
 Matrix: H2O Soil/Sludge ☒ Product Layer Sewage Other
 Preservation: None ☒ Acid Base Thermal: Iced ☒ No Iced
 Sample Bottle Picked-Up Date
 Prepared Lot #: 011419-1GK By Inspector: 6/12/2019
 Split Sample? Yes No ☒ Consultant/Lab:

Test(s) Run/Method #

Test(s) Run/Method #

DIOXIN (WHO 2005 TEF)

Temp° Iced?

AD13796
Rep. Sample

5.3 (Y) N

Relinquished To: **Contract Lab

Delivered By / Date:

Received By / Date:

Extracted By / Date:

Analyzed By / Date:

Returned By / Date:

Comments

 Fine light brown grain sand
 N 25° 47' 29", W 80° 15' 33"

WO#: 35475254

* By RER Lab ** By Contract Lab ^ Please specify the regulatory limit range

PM: TGA

Due Date: 06/25/19

CLIENT: 36-DERM

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RUSH

S

MIAMI-DADE COUNTY, FLORIDA

EPA # FL00025
FL CERT # E46126

RUSH

LABORATORY ANALYSIS RECORD
ENFORCEMENT

Department of Regulatory and Economic Resources

Environmental Resources Management

Office of Laboratory Services
MIAMI, FLORIDA 33130-1510
(305)-375-1851Site : Melreese Golf CourseAddress : 1802 NW 37th AvenueSampler/Section: Vianey Alvarado / Richard Hilaire / EMESDeliverer/Section: Vianey Alvarado / Richard Hilaire / EMESReturn Analysis to/Section: Tom Kux / Raymond Gonzalez / EMESC.C.#: 992511 Permit : AW-284 Phone : 305-372-6700

Sample # :

323466

Date : 6/12/2019Time : 9:53

Collection Point :

MGC_SB-3

Observation/Known Hazards:

13 JUN '19 12:34

AD13801

Clock-In Date/Inspector

Sign By Inspector

*Sign By Lab Custodian

*Laboratory ID #

*Temp.(°C)
upon Rec.

Return For TCLP / SPLP?

Clock-In Date/Inspector

Date Requested

*Laboratory ID # /Fridge #

*Laboratory ID # /Fridge #

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Sample Disposal Date

*Extracted By /Date

*Analyzed By /Date

^Regulatory Limits: SDWA __ NPDES __ RCRA __ Chap. 24 __ Other __

Matrix: H2O __ Soil/Sludge ☒ Product __ Layer __ Sewage __ Other __Preservation: None ☒ Acid __ Base __ Thermal : Iced ☒ No Iced __

Sample Bottle

Prepared Lot # : 011419-1616

Picked-Up Date

By Inspector: 6/12/2019Split Sample? Yes __ No ☒ Consultant/Lab: _____

Test(s) Run/Method #

Test(s) Run/Method #

Dioxin (WHO 2005 TEF)

Temp° Iced?

AD13796
Rep. Sample5.3 ☒ Y ☐ NRelinquished To: **Contract Lab JS

Delivered By / Date:

Received By / Date:

Extracted By / Date:

Analyzed By / Date:

Returned By / Date:

Comments Dark gray fine sand, from 4" to 6" black soil with Rock fragments & glass
N 25° 47' 28", W 00° 15' 28"

* By RER Lab ** By Contract Lab ^ Please specify the regulatory limit range

W0#: 35475254

PM: TGA

Due Date: 06/25/19

CLIENT: 36-DERM

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RUSH

5

MIAMI-DADE COUNTY, FLORIDA

EPA # FL00025
FL CERT # E46126

RUSH

LABORATORY ANALYSIS RECORD
ENFORCEMENT

Department of Regulatory and Economic Resources

Environmental Resources Management

Office of Laboratory Services
MIAMI, FLORIDA 33130-1510
(305)-375-1851Site : Melreese Golf CourseAddress : 1802 NW 37th AvenueSampler/Section: Vianey Alvarado / Richard Hilaire / EMESDeliverer/Section: Vianey Alvarado / Richard Hilaire / EMESReturn Analysis to/Section: Tom Kux / Raymond Gonzalez / EMESC.C.#: 992511 Permit : AW-284 Phone : 305-372-6700

Sample # :

323464

Date : 6/12/2019Time : 9:38

Collection Point :

MGC_SB-4

Observation/Known Hazards:

13 JUN '19 12:34

AD13799

5.3

Clock-In Date/Inspector

Sign By Inspector

*Sign By Lab Custodian

*Laboratory ID #

*Temp. (°C)
upon Rec.

Return For TCLP / SPLP?

Clock-In Date/Inspector

Date Requested

*Laboratory ID # / Fridge #

*Laboratory ID # / Fridge #

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Sample Disposal Date

*Extracted By / Date

*Analyzed By / Date

Comments organic matter, roots, grass, fine sandN 25° 45' 30", W 80° 15' 26"

* By RER Lab ** By Contract Lab ^ Please specify the regulatory limit range

^Regulatory Limits: SDWA __ NPDES __ RCRA __ Chap. 24 __ Other __

Matrix: H2O __ Soil/Sludge ☒ Product __ Layer __ Sewage __ Other __Preservation: None ☒ Acid __ Base __ Thermal: Iced ☒ No Iced __

Sample Bottle

Prepared Lot #: 011419-1 G1K

Picked-Up Date

By Inspector: 6/12/2019Split Sample? Yes __ No ☒ Consultant/Lab: _____

Test(s) Run/Method #

Test(s) Run/Method #

Dioxin (WHO 2005 TEF)

Temp° Iced? _____

AD13796
Rep. Sample

5.3 (Y) N

Relinquished To: **Contract Lab JS

Delivered By / Date: _____

Received By / Date: _____

Extracted By / Date: _____

Analyzed By / Date: _____

Returned By / Date: _____

WO#: 35475254

PM: TGA

Due Date: 06/25/19

CLIENT: 36-DERM

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GSM

RUSH

S

MIAMI-DADE COUNTY, FLORIDA

EPA # FL00025
FL CERT # E46126

RUSH

LABORATORY ANALYSIS RECORD
ENFORCEMENT

Department of Regulatory and Economic Resources

Environmental Resources Management

Office of Laboratory Services
MIAMI, FLORIDA 33130-1510
(305)-375-1851

Site :

Melreese Golf Course

Address:

1802 NW 37th Avenue

Sample # :

323456



Sampler/Section:

Vianey Alvarado / Richard Hilaire / EMES

Date : 6/12/2019

Time : 11:31

Deliverer/Section:

Vianey Alvarado / Richard Hilaire / EMES

Collection Point :

Return Analysis to/Section:

Tom Kux / Raymond Gonzalez / EMES

MGC_SB-8

C.C.#:

992511

Permit :

AW-284

Phone :

305-372-6700

Observation/Known Hazards:

13 JUN '19 12:33

AD13797

5.3

Clock-In Date/Inspector

Sign By Inspector

*Sign By Lab Custodian

*Laboratory ID #

*Temp.(°C)
upon Rec.

Return For TCLP / SPLP?

Clock-In Date/Inspector

Date Requested

*Laboratory ID # / Fridge #

*Laboratory ID # / Fridge #

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Returned-Date/ RER Lab

*Take-Out Date/ RER Lab

*Sample Disposal Date

*Extracted By / Date

*Analyzed By / Date

Comments

Brown Fine Grain Sand with some rock fragments.

N25° 47' 21" , W 80° 13' 31"

* By RER Lab ** By Contract Lab ^ Please specify the regulatory limit range

^Regulatory Limits: SDWA NPDES RCRA Chap. 24 Other

Matrix: H2O Soil/Sludge Product Layer Sewage Other

Preservation: None Acid Base Thermal: Iced No Iced

Sample Bottle

Prepared Lot #: 011419-1GK

Picked-Up Date

By Inspector: 6/12/2019

Split Sample? Yes No Consultant/Lab:

Test(s) Run/Method #

Test(s) Run/Method #

DIOXIN (WHO 2003 TEF)

Temp° Iced?

401379C
Rep. Sample

5.3 (Y) N

Relinquished To: **Contract Lab

Delivered By / Date:

Received By / Date:

Extracted By / Date:

Analyzed By / Date:

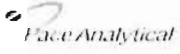
Returned By / Date:

WO#: 35475254

PM: TGA

CLIENT: 36-DERM

Due Date: 06/25/2019

	Document Name Sample Condition User Receipt Form	Document Revised May 30, 2018
	Document No. R-PLC-007 rev. 13	Issuing Authority Pace Florida Quality Office

Sample Condition User Receipt Form (SCUR)

Project **WO#: 35475254**
 Project Manager: **PM: TGA** Due Date: **06/25/19**
 Client: **CLIENT: 36-DERM**

Date and Initials of person:
 Examining contents: 06/14/19
 Label: _____
 Deliver: MA
 pH: _____

Thermometer Used T-330 Date 6.14.19 Time 1620 Initials WD

State of Origin FL ☐ For all projects a container verified to <45°F

Cooler #1 Temp: °C <u>0.6</u> (Visual) <u>0.0</u> (Correction Factor) <u>0.6</u> (Actual)	<input type="checkbox"/> Samples on ice cooling process has begun
Cooler #2 Temp: °C _____ (Visual) _____ (Correction Factor) _____ (Actual)	<input type="checkbox"/> Samples on ice cooling process has begun
Cooler #3 Temp: °C _____ (Visual) _____ (Correction Factor) _____ (Actual)	<input type="checkbox"/> Samples on ice cooling process has begun
Cooler #4 Temp: °C _____ (Visual) _____ (Correction Factor) _____ (Actual)	<input type="checkbox"/> Samples on ice cooling process has begun
Cooler #5 Temp: °C _____ (Visual) _____ (Correction Factor) _____ (Actual)	<input type="checkbox"/> Samples on ice cooling process has begun
Cooler #6 Temp: °C _____ (Visual) _____ (Correction Factor) _____ (Actual)	<input type="checkbox"/> Samples on ice cooling process has begun

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace ☐ Other _____
 Shipping Method: ☐ First Overnight ☐ Priority Overnight ☐ Standard Overnight ☐ Ground ☐ International Priority
 Other _____
 Billing: ☐ Recipient ☐ Sender ☐ Third Party ☐ Credit Card ☐ Unknown

Tracking # _____

Custody Seal on Cooler/Box Present: ☐ Yes ☒ No Seals intact: ☐ Yes ☒ No Ice: ☒ Wet ☐ Blue ☐ Dry ☐ None
 Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____
 Samples shorted to lab (If Yes, complete) Shorted Date _____ Shorted Time _____ Qty _____

Comments:

Chain of Custody Present	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	N/A	
Chain of Custody Filled Out	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	N/A	
Relinquished Signature & Sampler Name COC	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	N/A	
Samples Arrived within Hold Time	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	N/A	
Rush TAT requested on COC	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	N/A	<u>RUSH</u>
Sufficient Volume	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	N/A	
Correct Containers Used	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	N/A	
Containers Intact	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	N/A	
Sample Labels match COC (sample IDs & date time of collection)	Yes	<input checked="" type="checkbox"/> No	N/A	<u>NO TIME ON LABELS 06/14/19</u>
All containers needing acid base preservation have been checked	Yes	<input checked="" type="checkbox"/> No	N/A	Preservation Information Preservative _____ Lot # Trace # _____ Date _____ Time _____ Initials _____
All Containers needing preservation are found to be in compliance with EPA recommendation	Yes	<input checked="" type="checkbox"/> No	N/A	
Exceptions: VOA Co form TOC O&G Carbamates				
Headspace in VOA Vials? (>6mm)	Yes	<input checked="" type="checkbox"/> No	N/A	
Tripp Blank Present	Yes	<input checked="" type="checkbox"/> No	N/A	

Client Notification/ Resolution:
 Person Contacted _____ Date/Time _____

Comments/ Resolution (use back for additional comments):

Report Prepared for:

Terrence Anderson
PASI Florida
8 East Tower Circle
Ormond Beach FL 32174

**REPORT OF
LABORATORY
ANALYSIS FOR
PCDD/PCDF**

Report Prepared Date:

July 2, 2019

Report Information:

Pace Project #: 10479477
Sample Receipt Date: 06/15/2019
Client Project #: 35475254
Client Sub PO #: N/A
State Cert #: E87605

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 PCDD/PCDF Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Kirsten Hogberg, your Pace Project Manager.

This report has been reviewed by:



July 02, 2019

Kirsten Hogberg, Project Manager
(612) 607-6407
(612) 607-6444 (fax)
kirsten.hogberg@pacelabs.com



Report of Laboratory Analysis

This report should not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

The results relate only to the samples included in this report.



Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

DISCUSSION

This report presents the results from the analyses performed on ten samples submitted by a representative of Pace Analytical Services, LLC. The samples were analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using a modified version of USEPA Method 8290. The reporting limits were based on signal-to-noise measurements. Estimated Maximum Possible Concentration (EMPC) values were treated as positives in the toxic equivalence calculations. Per request, estimated detection limit (EDL) values were provided and flagged "U" where the target analytes were not detected.

Second column confirmation analyses of 2,3,7,8-TCDF values obtained from the primary (DB5-MS) column are performed only when specifically requested for a project and only when the values are above the concentration of the lowest calibration standard. Typical resolution for this isomer using the DB5-MS column ranges from 25-30%.

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extracts ranged from 50-100%. All of the labeled internal standard recoveries obtained for this project were within the 40-135% target range specified in Method 8290. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for recovery and accurate values were obtained.

Values were flagged "I" where incorrect isotope ratios were obtained. Concentrations below the calibration range were flagged "J" and should be regarded as estimates.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show the blank to contain trace levels of selected congeners. These levels were below the calibration range of the method. Sample levels similar to the corresponding blank levels were flagged "B" on the results tables and may be, at least partially, attributed to the background. It should be noted that levels less than ten times the background are not generally considered to be statistically different from the background.

A laboratory spike sample was also prepared with the sample batch using reference material that had been fortified with native standards. The recoveries of the spiked native compounds ranged from 93-113%. These results were within the target range for the method. Matrix spikes were prepared with the sample batch using sample material from a separate project; results from these analyses will be provided upon request.

REPORT OF LABORATORY ANALYSIS

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Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
A2LA	2926.01	Minnesota - Pet	1240
Alabama	40770	Mississippi	MN00064
Alaska - DW	MN00064	Missouri - DW	10100
Alaska - UST	17-009	Montana	CERT0092
Arizona	AZ0014	Nebraska	NE-OS-18-06
Arkansas - DW	MN00064	Nevada	MN00064
Arkansas - WW	88-0680	New Hampshire	2081
CNMI Saipan	MP0003	New Jersey (NE	MN002
California	2929	New York	11647
Colorado	MN00064	North Carolina	27700
Connecticut	PH-0256	North Carolina -	27700
EPA Region 8+	via MN 027-053	North Carolina -	530
Florida (NELAP	E87605	North Dakota	R-036
Georgia	959	Ohio - DW	41244
Guam	17-001r	Ohio - VAP	CL101
Hawaii	MN00064	Oklahoma	9507
Idaho	MN00064	Oregon - Primar	MN300001
Illinois	200011	Oregon - Secon	MN200001
Indiana	C-MN-01	Pennsylvania	68-00563
Iowa	368	Puerto Rico	MN00064
Kansas	E-10167	South Carolina	74003
Kentucky - DW	90062	South Dakota	NA
Kentucky - WW	90062	Tennessee	TN02818
Louisiana - DE	03086	Texas	T104704192
Louisiana - DW	MN00064	Utah (NELAP)	MN00064
Maine	MN00064	Virginia	460163
Maryland	322	Washington	C486
Massachusetts	M-MN064	West Virginia -	382
Michigan	9909	West Virginia -	9952C
Minnesota	027-053-137	Wisconsin	999407970
Minnesota - De	via MN 027-053	Wyoming - UST	2926.01

REPORT OF LABORATORY ANALYSIS

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Report No.....10479477
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Appendix A

Sample Management

Report No.....10479477_8290FC_DFR

State Of Origin: FL

Owner Received Date: 6/14/2019 Results Requested By: 6/25/2019

Workorder: 35475254 **Workorder Name:** 0136_E

Pace Analytical Minnesota
1700 Elm Street SE
Suite 200
Minneapolis, MN 55414
Phone (612)607-1700

WO#: 10479477



10479477


[illegible]

Transfers	Released By	Date/Time	Received By	Date/Time
1	<i>[Signature]</i>	06/14/19 1600	<i>[Signature]</i> Place	6/15/19 0930
2				
3				

Cooler Temperature on Receipt	1.9 °C	Custody Seal	(Y) or N	Received on Ice	(Y) or N	Samples Intact	(Y) or N
-------------------------------	--------	--------------	----------	-----------------	----------	----------------	----------

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

	Document Name: Regulated Soil Checklist	Document Revised: 13Feb2018 Page 1 of 2
	Document No.: F-MN-Q-338-Rev.06	Issuing Authority: Pace Minnesota Quality Office

USDA REGULATED SOIL CHECKLIST

To Be Completed by SR Staff:

WO: 10479477

Date: 6/15/19

Initials: CG

Sample Origin (circle one):

DOMESTIC

QUARANTINED

FOREIGN

(Note: soil samples from Hawaii, Guam, Puerto Rico and the US Virgin Islands are considered to be of a Foreign Source)

If Domestic, circle State of Origin:

AL AR CA FL GA LA MS NC NM NY OK OR SC TN TX VA

(Includes: IFA, SOD, Golden Nematode, Karnal Bunt and Witchweed)

List County: Miami-Dade

(USDA Permit/Compliance Agreement authorizes movement of samples from these domestic regulated zones)

If Quarantined, circle State of Origin:

FL ID TX CA

List County:

(Includes Fruit Fly, Giant African Snail and Pale Cyst Nematode)

(Movement is not authorized for Pale Cyst Nematode [ID or Giant African Snail [FL], remaining quarantines require additional paperwork)


If Foreign, list Country of Origin:

(Movement from some Canadian Provinces is not allowed. Refer to CS-232 Regulated Soil Flow Chart)

REQUIREMENT	ACTION	COMPLETED
PPQ-530 Paperwork must be included for any samples from counties with a Fruit Fly Quarantine in TX. Refer to MN-S063 through MN-S065	Scan PPQ-530 to the corresponding Project folder on the x drive. If PPQ-530 is not present, contact the Waste Coordinator and do not continue processing samples.	YES NO <u>N/A</u>
Samples from ID may not be moved from the quarantined region. Refer to MN-S055	If samples originated in a quarantined zone, contact the Waste Coordinator and do not continue processing samples.	YES NO <u>N/A</u>
Samples from Giant African Snail Quarantine in FL may not be moved from the quarantined region. Refer to MN-S068	If samples originated in a quarantined zone, contact the Waste Coordinator and do not continue processing samples.	YES NO <u>N/A</u>

REQUIREMENT	ACTION	COMPLETED
"Special Handling" stickers are to be placed on all samples.	Did "special handling" stickers get placed on all sample containers?	<u>YES</u> NO
Samples must be segregated and stored in designated bins, shelves and coolers.	Were samples placed in a designated cooler, containers and shelves?	<u>YES</u> NO
Samples must be double contained to prevent accidental release.	Were there any signs of breakage or leakage (check for broken glass and/or loose soil in the cooler)? <i>If NO, ice and melt water can be disposed of by normal process (down the drain).</i>	YES <u>NO</u>
	If YES, were ice and melt water separated from the cooler and disposed of properly?	YES NO <u>N/A</u>
	Any broken glass and/or loose soil are to be bagged and placed in a USDA Regulated satellite container or active drum (see Waste Coordinator). Ice and melt water should be baked at a temperature range of 121-154°F for 2 hours and then cooled before going down the drain.	
Equipment and supplies that have come into contact samples must be decontaminated.	Was the cooler(s) and/or countertop(s) decontaminated using either a fresh 10% bleach solution or 70% ethanol? (Gloves and other lab supplies will be bagged and placed in the USDA Regulated satellite container or active drum).	<u>YES</u> NO

Comments:

	Document Name: Regulated Soil Checklist	Document Revised: 13Feb2018 Page 2 of 2
	Document No.: F-MN-Q-338-Rev.06	Issuing Authority: Pace Minnesota Quality Office

To Be Completed by PM and/or PC:

Sample Analysis to be conducted (circle all that apply):

MN

Subcontract Lab

Name of Subcontract Lab (s):


REQUIREMENT	ACTION	COMPLETED
Permission to ship untreated soil must be on file prior to shipping to any subcontract lab, including IR Pace Labs.	Go to: J:\SHARE\PRJ_MGR\10_Client Services Department Documents\Regulated Soils Permits – if permission to ship letter is not there, contact the Waste Coordinator.	YES NO N/A
Shipment must include a valid copy of the receiving lab's permit as well as permission to ship letter.	Is a copy of all needed paperwork Included with the COC? Do NOT ship samples until all necessary paperwork is compiled.	YES NO N/A

Comments:

Project Manager Signature:

Kirsten Hoyer

Date: 6/18/2019

	Document Name:	Document Revised: 09May2019
	Sample Condition Upon Receipt Form	Page 1 of 1
	Document No.: F-MN-L-213-rev.28	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt	Client Name: <u>Pace South Florida</u>	Project #: WO#: 10479477
Courier:	<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Client <input type="checkbox"/> Pace <input type="checkbox"/> Speedee <input type="checkbox"/> Commercial <input type="checkbox"/> See Exception	PM: KNH Due Date: 07/01/19 CLIENT: PASI-FL
Tracking Number: <u>4961 5134 3500</u>		

Custody Seal on Cooler/Box Present? ☒ Yes ☐ No Seals Intact? ☒ Yes ☐ No Biological Tissue Frozen? ☐ Yes ☐ No ☒ N/A
 Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☒ Other: PB Temp Blank? ☒ Yes ☐ No
 Thermometer: ☐ T1(0461) ☒ T2(1336) ☐ T3(0459) Type of Ice: ☒ Wet ☐ Blue ☐ None ☐ Dry ☐ Melted
☐ T4(0254) ☐ T5(0489)

Note: Each West Virginia Sample must have temp taken (no temp blanks)

Temp should be above freezing to 6°C	Cooler Temp Read w/temp blank: <u>1.8</u> °C	Average Corrected Temp (no temp blank only): <u>1.9</u> °C	See Exceptions <input type="checkbox"/>
Correction Factor: <u>+0.1</u>	Cooler Temp Corrected w/temp blank: <u>1.9</u> °C	KNH 6/18/19	

USDA Regulated Soil: (☐ N/A, water sample/Other: _____)

Date/Initials of Person Examining Contents: CG 6/15/19

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? ☒ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

		COMMENTS:
Chain of Custody Present and Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Sampler Name and/or Signature on COC?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	3.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. <input type="checkbox"/> Fecal Coliform <input type="checkbox"/> HPC <input type="checkbox"/> Total Coliform/E coli <input type="checkbox"/> BOD/cBOD <input type="checkbox"/> Hex Chrome <input type="checkbox"/> Turbidity <input type="checkbox"/> Nitrate <input type="checkbox"/> Nitrite <input type="checkbox"/> Orthophos <input type="checkbox"/> Other
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Field Filtered Volume Received for Dissolved Tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10. Is sediment visible in the dissolved container? <input type="checkbox"/> Yes <input type="checkbox"/> No
Is sufficient information available to reconcile the samples to the COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. If no, write ID/ Date/Time on Container Below: <input type="checkbox"/> See Exception
Matrix: <input type="checkbox"/> Water <input checked="" type="checkbox"/> Soil <input type="checkbox"/> Oil <input type="checkbox"/> Other		
All containers needing acid/base preservation have been checked?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO ₃ , H ₂ SO ₄ , <2pH, NaOH >9 Sulfide, NaOH >12 Cyanide)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> NaOH <input type="checkbox"/> HNO ₃ <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Positive for Res. <input type="checkbox"/> Yes <input type="checkbox"/> No pH Paper Lot# <input type="checkbox"/> See Exception
		Res. Chlorine 0-6 Roll 0-6 Strip 0-14 Strip
Headspace in VOA Vials (greater than 6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> See Exception
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Pace Trip Blank Lot # (if purchased): <u>N/A</u>

CLIENT NOTIFICATION/RESOLUTION

Person Contacted: _____ Date/Time: _____ Field Data Required? ☐ Yes ☐ No
 Comments/Resolution: _____

Project Manager Review: Kirsten Hoffert

Date: 6/18/2019

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled by: MK

Reporting Flags

- A = Reporting Limit based on signal to noise
- B = Less than 10x higher than method blank level
- C = Result obtained from confirmation analysis
- D = Result obtained from analysis of diluted sample
- E = Exceeds calibration range
- I = Interference present
- J = Estimated value
- L = Suppressive interference, analyte may be biased low
- Nn = Value obtained from additional analysis
- P = PCDE Interference
- R = Recovery outside target range
- S = Peak saturated
- U = Analyte not detected
- V = Result verified by confirmation analysis
- X = %D Exceeds limits
- Y = Calculated using average of daily RFs
- * = See Discussion

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Appendix B

Sample Analysis Summary

Method 8290 Sample Analysis Results

Client - PASI Florida

Client's Sample ID	AD13815 323458		
Lab Sample ID	35475254001		
Filename	F190629A_05		
Injected By	JRH		
Total Amount Extracted	12.6 g	Matrix	Solid
% Moisture	19.2	Dilution	NA
Dry Weight Extracted	10.2 g	Collected	06/12/2019 11:18
ICAL ID	F190620	Received	06/15/2019 09:30
CCal Filename(s)	F190628B_17 & F190629A_17	Extracted	06/25/2019 15:10
Method Blank ID	BLANK-71439	Analyzed	06/29/2019 03:12

Native Isomers	Conc ng/Kg	EMPC ng/Kg	EDL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.070 U	—	0.070	2,3,7,8-TCDF-13C	2.00	78
Total TCDF	0.27	—	0.070 BJ	2,3,7,8-TCDD-13C	2.00	77
				1,2,3,7,8-PeCDF-13C	2.00	68
2,3,7,8-TCDD	0.044 U	—	0.044	2,3,4,7,8-PeCDF-13C	2.00	66
Total TCDD	0.44	—	0.044 J	1,2,3,7,8-PeCDD-13C	2.00	77
				1,2,3,4,7,8-HxCDF-13C	2.00	63
1,2,3,7,8-PeCDF	0.060 U	—	0.060	1,2,3,6,7,8-HxCDF-13C	2.00	67
2,3,4,7,8-PeCDF	0.079 U	—	0.079	2,3,4,6,7,8-HxCDF-13C	2.00	71
Total PeCDF	0.069 U	—	0.069	1,2,3,7,8,9-HxCDF-13C	2.00	72
				1,2,3,4,7,8-HxCDD-13C	2.00	71
1,2,3,7,8-PeCDD	0.13 U	—	0.13	1,2,3,6,7,8-HxCDD-13C	2.00	70
Total PeCDD	0.61	—	0.13 J	1,2,3,4,6,7,8-HpCDF-13C	2.00	79
				1,2,3,4,7,8-HpCDF-13C	2.00	81
1,2,3,4,7,8-HxCDF	0.15 U	—	0.15	1,2,3,4,6,7,8-HpCDD-13C	2.00	94
1,2,3,6,7,8-HxCDF	0.11 U	—	0.11	OCDD-13C	4.00	85
2,3,4,6,7,8-HxCDF	0.085 U	—	0.085			
1,2,3,7,8,9-HxCDF	0.066 U	—	0.066	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	0.67	—	0.10 J	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	0.13 U	—	0.13	2,3,7,8-TCDD-37Cl4	0.20	86
1,2,3,6,7,8-HxCDD	0.15 U	—	0.15			
1,2,3,7,8,9-HxCDD	—	0.15	0.14 IJ			
Total HxCDD	0.42	—	0.14 J			
1,2,3,4,6,7,8-HpCDF	0.74	—	0.18 J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	0.33 U	—	0.33	Equivalence: 0.094 ng/Kg		
Total HpCDF	0.74	—	0.26 J	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	3.5	—	0.17 J			
Total HpCDD	7.9	—	0.17			
OCDF	—	0.95	0.18 IJ			
OCDD	35	—	0.33			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
EDL = Estimated Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.

J = Estimated value

B = Less than 10x higher than method blank level

I = Interference present

REPORT OF LABORATORY ANALYSIS

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Method 8290 Sample Analysis Results

Client - PASI Florida

Client's Sample ID	AD13813 323462		
Lab Sample ID	35475254002		
Filename	F190629A_06		
Injected By	JRH		
Total Amount Extracted	12.1 g	Matrix	Solid
% Moisture	18.6	Dilution	NA
Dry Weight Extracted	9.82 g	Collected	06/12/2019 11:06
ICAL ID	F190620	Received	06/15/2019 09:30
CCal Filename(s)	F190628B_17 & F190629A_17	Extracted	06/25/2019 15:10
Method Blank ID	BLANK-71439	Analyzed	06/29/2019 03:52

Native Isomers	Conc ng/Kg	EMPC ng/Kg	EDL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.095 U	—	0.095	2,3,7,8-TCDF-13C	2.00	80
Total TCDF	0.095 U	—	0.095	2,3,7,8-TCDD-13C	2.00	81
				1,2,3,7,8-PeCDF-13C	2.00	75
2,3,7,8-TCDD	0.088 U	—	0.088	2,3,4,7,8-PeCDF-13C	2.00	76
Total TCDD	0.27	—	0.088 J	1,2,3,7,8-PeCDD-13C	2.00	89
				1,2,3,4,7,8-HxCDF-13C	2.00	68
1,2,3,7,8-PeCDF	0.072 U	—	0.072	1,2,3,6,7,8-HxCDF-13C	2.00	72
2,3,4,7,8-PeCDF	0.069 U	—	0.069	2,3,4,6,7,8-HxCDF-13C	2.00	75
Total PeCDF	0.45	—	0.071 J	1,2,3,7,8,9-HxCDF-13C	2.00	76
				1,2,3,4,7,8-HxCDD-13C	2.00	76
1,2,3,7,8-PeCDD	0.19 U	—	0.19	1,2,3,6,7,8-HxCDD-13C	2.00	77
Total PeCDD	0.33	—	0.19 J	1,2,3,4,6,7,8-HpCDF-13C	2.00	83
				1,2,3,4,7,8-HpCDF-13C	2.00	85
1,2,3,4,7,8-HxCDF	0.14 U	—	0.14	1,2,3,4,6,7,8-HpCDD-13C	2.00	96
1,2,3,6,7,8-HxCDF	0.11 U	—	0.11	OCDD-13C	4.00	92
2,3,4,6,7,8-HxCDF	0.086 U	—	0.086			
1,2,3,7,8,9-HxCDF	0.084 U	—	0.084	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	0.37	—	0.10 J	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	0.13 U	—	0.13	2,3,7,8-TCDD-37Cl4	0.20	89
1,2,3,6,7,8-HxCDD	0.12 U	—	0.12			
1,2,3,7,8,9-HxCDD	0.14 U	—	0.14			
Total HxCDD	0.89	—	0.13 J			
1,2,3,4,6,7,8-HpCDF	0.50	—	0.23 J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	0.31 U	—	0.31	Equivalence: 0.058 ng/Kg		
Total HpCDF	0.50	—	0.27 J	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	2.6	—	0.18 J			
Total HpCDD	6.4	—	0.18			
OCDF	0.85	—	0.19 J			
OCDD	26	—	0.31			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
EDL = Estimated Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.
J = Estimated value

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Method 8290 Sample Analysis Results

Client - PASI Florida

Client's Sample ID	AD13811 323448		
Lab Sample ID	35475254003		
Filename	F190629A_07		
Injected By	JRH		
Total Amount Extracted	12.3 g	Matrix	Solid
% Moisture	18.9	Dilution	NA
Dry Weight Extracted	9.95 g	Collected	06/12/2019 10:53
ICAL ID	F190620	Received	06/15/2019 09:30
CCal Filename(s)	F190628B_17 & F190629A_17	Extracted	06/25/2019 15:10
Method Blank ID	BLANK-71439	Analyzed	06/29/2019 04:32

Native Isomers	Conc ng/Kg	EMPC ng/Kg	EDL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.043 U	—	0.043	2,3,7,8-TCDF-13C	2.00	74
Total TCDF	0.24	—	0.043 BJ	2,3,7,8-TCDD-13C	2.00	75
				1,2,3,7,8-PeCDF-13C	2.00	66
2,3,7,8-TCDD	0.071 U	—	0.071	2,3,4,7,8-PeCDF-13C	2.00	66
Total TCDD	0.34	—	0.071 J	1,2,3,7,8-PeCDD-13C	2.00	77
				1,2,3,4,7,8-HxCDF-13C	2.00	60
1,2,3,7,8-PeCDF	0.051 U	—	0.051	1,2,3,6,7,8-HxCDF-13C	2.00	64
2,3,4,7,8-PeCDF	0.051	—	0.043 J	2,3,4,6,7,8-HxCDF-13C	2.00	65
Total PeCDF	0.67	—	0.047 J	1,2,3,7,8,9-HxCDF-13C	2.00	67
				1,2,3,4,7,8-HxCDD-13C	2.00	66
1,2,3,7,8-PeCDD	0.092 U	—	0.092	1,2,3,6,7,8-HxCDD-13C	2.00	67
Total PeCDD	0.33	—	0.092 J	1,2,3,4,6,7,8-HpCDF-13C	2.00	74
				1,2,3,4,7,8,9-HpCDF-13C	2.00	76
1,2,3,4,7,8-HxCDF	0.10 U	—	0.10	1,2,3,4,6,7,8-HpCDD-13C	2.00	88
1,2,3,6,7,8-HxCDF	0.096 U	—	0.096	OCDD-13C	4.00	84
2,3,4,6,7,8-HxCDF	0.077 U	—	0.077			
1,2,3,7,8,9-HxCDF	0.068 U	—	0.068	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	0.76	—	0.086 J	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	0.13 U	—	0.13	2,3,7,8-TCDD-37Cl4	0.20	90
1,2,3,6,7,8-HxCDD	0.15	—	0.13 J			
1,2,3,7,8,9-HxCDD	0.14 U	—	0.14			
Total HxCDD	1.9	—	0.13 J			
1,2,3,4,6,7,8-HpCDF	0.48	—	0.30 J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	0.21 U	—	0.21	Equivalence: 0.17 ng/Kg		
Total HpCDF	0.48	—	0.26 J	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	7.1	—	0.19			
Total HpCDD	16	—	0.19			
OCDF	1.0	—	0.19 J			
OCDD	52	—	0.24			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
EDL = Estimated Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.

J = Estimated value

B = Less than 10x higher than method blank level

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Method 8290 Sample Analysis Results

Client - PASI Florida

Client's Sample ID	AD13809 323460		
Lab Sample ID	35475254004		
Filename	F190629A_08		
Injected By	JRH		
Total Amount Extracted	13.6 g	Matrix	Solid
% Moisture	16.2	Dilution	NA
Dry Weight Extracted	11.4 g	Collected	06/12/2019 10:43
ICAL ID	F190620	Received	06/15/2019 09:30
CCal Filename(s)	F190628B_17 & F190629A_17	Extracted	06/25/2019 15:10
Method Blank ID	BLANK-71439	Analyzed	06/29/2019 05:11

Native Isomers	Conc ng/Kg	EMPC ng/Kg	EDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.40	—	0.041	J	2,3,7,8-TCDF-13C	2.00	75
Total TCDF	4.4	—	0.041		2,3,7,8-TCDD-13C	2.00	74
					1,2,3,7,8-PeCDF-13C	2.00	68
2,3,7,8-TCDD	0.19	—	0.035	J	2,3,4,7,8-PeCDF-13C	2.00	67
Total TCDD	11	—	0.035		1,2,3,7,8-PeCDD-13C	2.00	78
					1,2,3,4,7,8-HxCDF-13C	2.00	58
1,2,3,7,8-PeCDF	0.24	—	0.11	J	1,2,3,6,7,8-HxCDF-13C	2.00	61
2,3,4,7,8-PeCDF	0.47	—	0.11	J	2,3,4,6,7,8-HxCDF-13C	2.00	65
Total PeCDF	6.6	—	0.11		1,2,3,7,8,9-HxCDF-13C	2.00	67
					1,2,3,4,7,8-HxCDD-13C	2.00	67
1,2,3,7,8-PeCDD	0.62	—	0.099	J	1,2,3,6,7,8-HxCDD-13C	2.00	64
Total PeCDD	9.4	—	0.099		1,2,3,4,6,7,8-HpCDF-13C	2.00	75
					1,2,3,4,7,8,9-HpCDF-13C	2.00	80
1,2,3,4,7,8-HxCDF	0.52	—	0.19	J	1,2,3,4,6,7,8-HpCDD-13C	2.00	90
1,2,3,6,7,8-HxCDF	0.51	—	0.091	J	OCDD-13C	4.00	96
2,3,4,6,7,8-HxCDF	0.37	—	0.089	J			
1,2,3,7,8,9-HxCDF	0.20	—	0.068	J	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	9.8	—	0.11		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	0.55	—	0.27	J	2,3,7,8-TCDD-37Cl4	0.20	85
1,2,3,6,7,8-HxCDD	3.0	—	0.18	J			
1,2,3,7,8,9-HxCDD	1.7	—	0.23	J			
Total HxCDD	38	—	0.23				
1,2,3,4,6,7,8-HpCDF	6.6	—	0.14		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	—	0.41	0.32	IJ	Equivalence: 3.6 ng/Kg		
Total HpCDF	22	—	0.23		(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	110	—	0.36				
Total HpCDD	240	—	0.36				
OCDF	11	—	0.11				
OCDD	1000	—	0.89				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
EDL = Estimated Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

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J = Estimated value

I = Interference present

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Method 8290 Sample Analysis Results

Client - PASI Florida

Client's Sample ID	AD13807 323454		
Lab Sample ID	35475254005		
Filename	F190629A_09		
Injected By	JRH		
Total Amount Extracted	13.2 g	Matrix	Solid
% Moisture	16.3	Dilution	NA
Dry Weight Extracted	11.0 g	Collected	06/12/2019 10:30
ICAL ID	F190620	Received	06/15/2019 09:30
CCal Filename(s)	F190628B_17 & F190629A_17	Extracted	06/25/2019 15:10
Method Blank ID	BLANK-71439	Analyzed	06/29/2019 05:51

Native Isomers	Conc ng/Kg	EMPC ng/Kg	EDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.23	—	0.037	J	2,3,7,8-TCDF-13C	2.00	77
Total TCDF	3.5	—	0.037		2,3,7,8-TCDD-13C	2.00	79
					1,2,3,7,8-PeCDF-13C	2.00	70
2,3,7,8-TCDD	0.038 U	—	0.038		2,3,4,7,8-PeCDF-13C	2.00	70
Total TCDD	10	—	0.038		1,2,3,7,8-PeCDD-13C	2.00	82
					1,2,3,4,7,8-HxCDF-13C	2.00	64
1,2,3,7,8-PeCDF	—	0.16	0.040	IJ	1,2,3,6,7,8-HxCDF-13C	2.00	67
2,3,4,7,8-PeCDF	0.35	—	0.040	J	2,3,4,6,7,8-HxCDF-13C	2.00	70
Total PeCDF	5.6	—	0.040		1,2,3,7,8,9-HxCDF-13C	2.00	74
					1,2,3,4,7,8-HxCDD-13C	2.00	73
1,2,3,7,8-PeCDD	0.39	—	0.11	J	1,2,3,6,7,8-HxCDD-13C	2.00	69
Total PeCDD	4.5	—	0.11	J	1,2,3,4,6,7,8-HpCDF-13C	2.00	79
					1,2,3,4,7,8,9-HpCDF-13C	2.00	85
1,2,3,4,7,8-HxCDF	0.29	—	0.15	J	1,2,3,4,6,7,8-HpCDD-13C	2.00	100
1,2,3,6,7,8-HxCDF	—	0.35	0.14	IJ	OCDD-13C	4.00	97
2,3,4,6,7,8-HxCDF	0.48	—	0.070	J			
1,2,3,7,8,9-HxCDF	0.082 U	—	0.082		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	8.4	—	0.11		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	—	0.30	0.13	IJ	2,3,7,8-TCDD-37Cl4	0.20	84
1,2,3,6,7,8-HxCDD	1.8	—	0.17	J			
1,2,3,7,8,9-HxCDD	1.3	—	0.11	J			
Total HxCDD	15	—	0.13				
1,2,3,4,6,7,8-HpCDF	11	—	0.24		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	0.50 U	—	0.50		Equivalence: 2.0 ng/Kg		
Total HpCDF	23	—	0.37		(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	55	—	0.34				
Total HpCDD	100	—	0.34				
OCDF	14	—	0.11				
OCDD	420	—	0.81				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
EDL = Estimated Detection Limit

ND = Not Detected
NA = Not Applicable
NC = Not Calculated

Results reported on a dry weight basis and are valid to no more than 2 significant figures.

J = Estimated value

I = Interference present

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Method 8290 Sample Analysis Results

Client - PASI Florida

Client's Sample ID	AD13805 323452		
Lab Sample ID	35475254006		
Filename	F190629A_10		
Injected By	JRH		
Total Amount Extracted	13.4 g	Matrix	Solid
% Moisture	27.3	Dilution	NA
Dry Weight Extracted	9.71 g	Collected	06/12/2019 10:17
ICAL ID	F190620	Received	06/15/2019 09:30
CCal Filename(s)	F190628B_17 & F190629A_17	Extracted	06/25/2019 15:10
Method Blank ID	BLANK-71439	Analyzed	06/29/2019 06:30

Native Isomers	Conc ng/Kg	EMPC ng/Kg	EDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	—	0.13	0.069	I	2,3,7,8-TCDF-13C	2.00	66
Total TCDF	0.069 U	—	0.069		2,3,7,8-TCDD-13C	2.00	68
					1,2,3,7,8-PeCDF-13C	2.00	57
2,3,7,8-TCDD	0.13 U	—	0.13		2,3,4,7,8-PeCDF-13C	2.00	58
Total TCDD	0.27	—	0.13	J	1,2,3,7,8-PeCDD-13C	2.00	68
					1,2,3,4,7,8-HxCDF-13C	2.00	55
1,2,3,7,8-PeCDF	0.13 U	—	0.13		1,2,3,6,7,8-HxCDF-13C	2.00	58
2,3,4,7,8-PeCDF	0.15 U	—	0.15		2,3,4,6,7,8-HxCDF-13C	2.00	61
Total PeCDF	0.48	—	0.14	J	1,2,3,7,8,9-HxCDF-13C	2.00	64
					1,2,3,4,7,8-HxCDD-13C	2.00	61
1,2,3,7,8-PeCDD	0.27 U	—	0.27		1,2,3,6,7,8-HxCDD-13C	2.00	60
Total PeCDD	0.75	—	0.27	J	1,2,3,4,6,7,8-HpCDF-13C	2.00	76
					1,2,3,4,7,8,9-HpCDF-13C	2.00	85
1,2,3,4,7,8-HxCDF	0.23 U	—	0.23		1,2,3,4,6,7,8-HpCDD-13C	2.00	94
1,2,3,6,7,8-HxCDF	0.20 U	—	0.20		OCDD-13C	4.00	92
2,3,4,6,7,8-HxCDF	0.12 U	—	0.12				
1,2,3,7,8,9-HxCDF	0.13 U	—	0.13		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	0.17 U	—	0.17		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	0.22 U	—	0.22		2,3,7,8-TCDD-37Cl4	0.20	72
1,2,3,6,7,8-HxCDD	0.25 U	—	0.25				
1,2,3,7,8,9-HxCDD	0.22 U	—	0.22				
Total HxCDD	2.3	—	0.23	J			
1,2,3,4,6,7,8-HpCDF	—	1.5	0.59	I	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	0.99 U	—	0.99		Equivalence: 0.16 ng/Kg		
Total HpCDF	0.79 U	—	0.79		(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	7.4	—	0.44				
Total HpCDD	18	—	0.44				
OCDF	3.0	—	0.25	J			
OCDD	59	—	0.36				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
EMPC = Estimated Maximum Possible Concentration
EDL = Estimated Detection Limit

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Method 8290 Sample Analysis Results

Client - PASI Florida

Client's Sample ID	AD13803 323446		
Lab Sample ID	35475254007		
Filename	F190629A_11		
Injected By	JRH		
Total Amount Extracted	13.6 g	Matrix	Solid
% Moisture	13.0	Dilution	NA
Dry Weight Extracted	11.8 g	Collected	06/12/2019 10:05
ICAL ID	F190620	Received	06/15/2019 09:30
CCal Filename(s)	F190628B_17 & F190629A_17	Extracted	06/25/2019 15:10
Method Blank ID	BLANK-71439	Analyzed	06/29/2019 07:10

Native Isomers	Conc ng/Kg	EMPC ng/Kg	EDL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.035 U	—	0.035	2,3,7,8-TCDF-13C	2.00	77
Total TCDF	0.34	—	0.035 BJ	2,3,7,8-TCDD-13C	2.00	77
				1,2,3,7,8-PeCDF-13C	2.00	69
2,3,7,8-TCDD	0.037 U	—	0.037	2,3,4,7,8-PeCDF-13C	2.00	70
Total TCDD	0.51	—	0.037 J	1,2,3,7,8-PeCDD-13C	2.00	80
				1,2,3,4,7,8-HxCDF-13C	2.00	62
1,2,3,7,8-PeCDF	0.050 U	—	0.050	1,2,3,6,7,8-HxCDF-13C	2.00	66
2,3,4,7,8-PeCDF	—	0.082	0.064 IJ	2,3,4,6,7,8-HxCDF-13C	2.00	69
Total PeCDF	0.73	—	0.057 J	1,2,3,7,8,9-HxCDF-13C	2.00	71
				1,2,3,4,7,8-HxCDD-13C	2.00	70
1,2,3,7,8-PeCDD	0.13 U	—	0.13	1,2,3,6,7,8-HxCDD-13C	2.00	69
Total PeCDD	0.67	—	0.13 J	1,2,3,4,6,7,8-HpCDF-13C	2.00	83
				1,2,3,4,7,8-HpCDF-13C	2.00	88
1,2,3,4,7,8-HxCDF	0.12	—	0.089 J	1,2,3,4,6,7,8-HpCDD-13C	2.00	100
1,2,3,6,7,8-HxCDF	0.087	—	0.080 J	OCDD-13C	4.00	95
2,3,4,6,7,8-HxCDF	0.078	—	0.055 J			
1,2,3,7,8,9-HxCDF	0.056 U	—	0.056	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	1.5	—	0.070 J	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	0.072 U	—	0.072	2,3,7,8-TCDD-37Cl4	0.20	88
1,2,3,6,7,8-HxCDD	0.32	—	0.15 J			
1,2,3,7,8,9-HxCDD	0.24	—	0.13 J			
Total HxCDD	4.5	—	0.12			
1,2,3,4,6,7,8-HpCDF	1.2	—	0.28 J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	0.36 U	—	0.36	Equivalence: 0.35 ng/Kg		
Total HpCDF	1.2	—	0.32 J	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	11	—	0.23			
Total HpCDD	43	—	0.23			
OCDF	2.9	—	0.13 J			
OCDD	110	—	0.24			

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EDL = Estimated Detection Limit

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B = Less than 10x higher than method blank level

I = Interference present

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Method 8290 Sample Analysis Results

Client - PASI Florida

Client's Sample ID	AD13801 323466		
Lab Sample ID	35475254008		
Filename	F190629A_12		
Injected By	JRH		
Total Amount Extracted	13.7 g	Matrix	Solid
% Moisture	24.1	Dilution	NA
Dry Weight Extracted	10.4 g	Collected	06/12/2019 09:53
ICAL ID	F190620	Received	06/15/2019 09:30
CCal Filename(s)	F190628B_17 & F190629A_17	Extracted	06/25/2019 15:10
Method Blank ID	BLANK-71439	Analyzed	06/29/2019 07:50

Native Isomers	Conc ng/Kg	EMPC ng/Kg	EDL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	2.1	—	0.067	2,3,7,8-TCDF-13C	2.00	68
Total TCDF	40	—	0.067	2,3,7,8-TCDD-13C	2.00	67
				1,2,3,7,8-PeCDF-13C	2.00	60
2,3,7,8-TCDD	1.3	—	0.062	2,3,4,7,8-PeCDF-13C	2.00	60
Total TCDD	98	—	0.062	1,2,3,7,8-PeCDD-13C	2.00	70
				1,2,3,4,7,8-HxCDF-13C	2.00	50
1,2,3,7,8-PeCDF	—	1.4	0.099 J	1,2,3,6,7,8-HxCDF-13C	2.00	50
2,3,4,7,8-PeCDF	1.8	—	0.079 J	2,3,4,6,7,8-HxCDF-13C	2.00	57
Total PeCDF	24	—	0.089	1,2,3,7,8,9-HxCDF-13C	2.00	60
				1,2,3,4,7,8-HxCDD-13C	2.00	57
1,2,3,7,8-PeCDD	—	2.8	0.17 J	1,2,3,6,7,8-HxCDD-13C	2.00	56
Total PeCDD	28	—	0.17	1,2,3,4,6,7,8-HpCDF-13C	2.00	64
				1,2,3,4,7,8,9-HpCDF-13C	2.00	79
1,2,3,4,7,8-HxCDF	1.0	—	0.23 J	1,2,3,4,6,7,8-HpCDD-13C	2.00	84
1,2,3,6,7,8-HxCDF	1.3	—	0.16 J	OCDD-13C	4.00	92
2,3,4,6,7,8-HxCDF	—	0.85	0.12 J			
1,2,3,7,8,9-HxCDF	0.65	—	0.14 J	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	17	—	0.16	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	2.2	—	0.35 J	2,3,7,8-TCDD-37Cl4	0.20	75
1,2,3,6,7,8-HxCDD	9.7	—	0.23			
1,2,3,7,8,9-HxCDD	7.5	—	0.37			
Total HxCDD	98	—	0.32			
1,2,3,4,6,7,8-HpCDF	—	10	0.67 I	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	0.57 U	—	0.57	Equivalence: 10 ng/Kg		
Total HpCDF	0.62 U	—	0.62	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	240	—	0.67			
Total HpCDD	450	—	0.67			
OCDF	23	—	0.20			
OCDD	1700	—	0.88			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
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Method 8290 Sample Analysis Results

Client - PASI Florida

Client's Sample ID	AD13799 323464		
Lab Sample ID	35475254009		
Filename	F190629A_13		
Injected By	JRH		
Total Amount Extracted	13.1 g	Matrix	Solid
% Moisture	26.8	Dilution	NA
Dry Weight Extracted	9.60 g	Collected	06/12/2019 09:38
ICAL ID	F190620	Received	06/15/2019 09:30
CCal Filename(s)	F190628B_17 & F190629A_17	Extracted	06/25/2019 15:10
Method Blank ID	BLANK-71439	Analyzed	06/29/2019 08:29

Native Isomers	Conc ng/Kg	EMPC ng/Kg	EDL ng/Kg		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	—	0.16	0.082	IJ	2,3,7,8-TCDF-13C	2.00	63
Total TCDF	2.3	—	0.082		2,3,7,8-TCDD-13C	2.00	62
					1,2,3,7,8-PeCDF-13C	2.00	60
2,3,7,8-TCDD	0.078 U	—	0.078		2,3,4,7,8-PeCDF-13C	2.00	62
Total TCDD	1.0	—	0.078	J	1,2,3,7,8-PeCDD-13C	2.00	74
					1,2,3,4,7,8-HxCDF-13C	2.00	57
1,2,3,7,8-PeCDF	—	0.14	0.12	IJ	1,2,3,6,7,8-HxCDF-13C	2.00	60
2,3,4,7,8-PeCDF	0.19	—	0.14	J	2,3,4,6,7,8-HxCDF-13C	2.00	61
Total PeCDF	2.5	—	0.13	J	1,2,3,7,8,9-HxCDF-13C	2.00	58
					1,2,3,4,7,8-HxCDD-13C	2.00	63
1,2,3,7,8-PeCDD	0.15 U	—	0.15		1,2,3,6,7,8-HxCDD-13C	2.00	60
Total PeCDD	0.15 U	—	0.15		1,2,3,4,6,7,8-HpCDF-13C	2.00	66
					1,2,3,4,7,8,9-HpCDF-13C	2.00	68
1,2,3,4,7,8-HxCDF	0.23	—	0.21	J	1,2,3,4,6,7,8-HpCDD-13C	2.00	79
1,2,3,6,7,8-HxCDF	0.21 U	—	0.21		OCDD-13C	4.00	68
2,3,4,6,7,8-HxCDF	0.25	—	0.16	J			
1,2,3,7,8,9-HxCDF	0.27 U	—	0.27		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	2.8	—	0.21	J	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	0.28 U	—	0.28		2,3,7,8-TCDD-37Cl4	0.20	68
1,2,3,6,7,8-HxCDD	0.67	—	0.25	J			
1,2,3,7,8,9-HxCDD	0.32 U	—	0.32				
Total HxCDD	6.1	—	0.29				
1,2,3,4,6,7,8-HpCDF	2.4	—	0.41	J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	0.83 U	—	0.83		Equivalence: 0.52 ng/Kg		
Total HpCDF	2.4	—	0.62	J	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	14	—	0.34				
Total HpCDD	47	—	0.34				
OCDF	5.7	—	0.38	J			
OCDD	120	—	0.56				

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Method 8290 Sample Analysis Results

Client - PASI Florida

Client's Sample ID	AD13797 323456		
Lab Sample ID	35475254010		
Filename	F190629A_14		
Injected By	JRH		
Total Amount Extracted	13.4 g	Matrix	Solid
% Moisture	9.1	Dilution	NA
Dry Weight Extracted	12.2 g	Collected	06/12/2019 11:31
ICAL ID	F190620	Received	06/15/2019 09:30
CCal Filename(s)	F190628B_17 & F190629A_17	Extracted	06/25/2019 15:10
Method Blank ID	BLANK-71439	Analyzed	06/29/2019 09:09

Native Isomers	Conc ng/Kg	EMPC ng/Kg	EDL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	1.0	—	0.045	2,3,7,8-TCDF-13C	2.00	83
Total TCDF	12	—	0.045	2,3,7,8-TCDD-13C	2.00	83
				1,2,3,7,8-PeCDF-13C	2.00	78
2,3,7,8-TCDD	0.40	—	0.082 J	2,3,4,7,8-PeCDF-13C	2.00	79
Total TCDD	19	—	0.082	1,2,3,7,8-PeCDD-13C	2.00	94
				1,2,3,4,7,8-HxCDF-13C	2.00	61
1,2,3,7,8-PeCDF	0.35	—	0.073 J	1,2,3,6,7,8-HxCDF-13C	2.00	64
2,3,4,7,8-PeCDF	1.3	—	0.060 J	2,3,4,6,7,8-HxCDF-13C	2.00	68
Total PeCDF	19	—	0.066	1,2,3,7,8,9-HxCDF-13C	2.00	73
				1,2,3,4,7,8-HxCDD-13C	2.00	72
1,2,3,7,8-PeCDD	0.79	—	0.15 J	1,2,3,6,7,8-HxCDD-13C	2.00	70
Total PeCDD	10	—	0.15	1,2,3,4,6,7,8-HpCDF-13C	2.00	78
				1,2,3,4,7,8-HpCDF-13C	2.00	83
1,2,3,4,7,8-HxCDF	0.75	—	0.098 J	1,2,3,4,6,7,8-HpCDD-13C	2.00	98
1,2,3,6,7,8-HxCDF	0.67	—	0.081 J	OCDD-13C	4.00	99
2,3,4,6,7,8-HxCDF	0.61	—	0.062 J			
1,2,3,7,8,9-HxCDF	—	0.19	0.075 IJ	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	15	—	0.079	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	—	0.82	0.19 IJ	2,3,7,8-TCDD-37Cl4	0.20	91
1,2,3,6,7,8-HxCDD	3.6	—	0.15 J			
1,2,3,7,8,9-HxCDD	2.6	—	0.21 J			
Total HxCDD	41	—	0.18			
1,2,3,4,6,7,8-HpCDF	11	—	0.20	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	—	0.61	0.25 IJ	Equivalence: 5.0 ng/Kg		
Total HpCDF	35	—	0.22	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	120	—	0.24			
Total HpCDD	310	—	0.24			
OCDF	25	—	0.20			
OCDD	1100	—	0.61			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).
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I = Interference present

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Method 8290 Blank Analysis Results

Lab Sample Name	DFBLKFY	Matrix	Solid/Wipe
Lab Sample ID	BLANK-71439	Dilution	NA
Filename	F190628A_04	Extracted	06/25/2019 15:10
Total Amount Extracted	10.4 g	Analyzed	06/28/2019 03:17
ICAL ID	F190620	Injected By	SMT
C-Cal Filename(s)	F190627A_06 & F190628A_18		

Native Isomers	Conc ng/Kg	EMPC ng/Kg	EDL ng/Kg	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.051 U	—	0.051	2,3,7,8-TCDF-13C	2.00	77
Total TCDF	0.073	—	0.051 J	2,3,7,8-TCDD-13C	2.00	75
				1,2,3,7,8-PeCDF-13C	2.00	69
2,3,7,8-TCDD	0.055 U	—	0.055	2,3,4,7,8-PeCDF-13C	2.00	69
Total TCDD	0.055 U	—	0.055	1,2,3,7,8-PeCDD-13C	2.00	76
				1,2,3,4,7,8-HxCDF-13C	2.00	56
1,2,3,7,8-PeCDF	0.075 U	—	0.075	1,2,3,6,7,8-HxCDF-13C	2.00	60
2,3,4,7,8-PeCDF	0.100 U	—	0.100	2,3,4,6,7,8-HxCDF-13C	2.00	63
Total PeCDF	0.088 U	—	0.088	1,2,3,7,8,9-HxCDF-13C	2.00	65
				1,2,3,4,7,8-HxCDD-13C	2.00	62
1,2,3,7,8-PeCDD	0.18 U	—	0.18	1,2,3,6,7,8-HxCDD-13C	2.00	60
Total PeCDD	0.18 U	—	0.18	1,2,3,4,6,7,8-HpCDF-13C	2.00	70
				1,2,3,4,7,8,9-HpCDF-13C	2.00	68
1,2,3,4,7,8-HxCDF	0.12 U	—	0.12	1,2,3,4,6,7,8-HpCDD-13C	2.00	76
1,2,3,6,7,8-HxCDF	0.12 U	—	0.12	OCDD-13C	4.00	67
2,3,4,6,7,8-HxCDF	0.096 U	—	0.096			
1,2,3,7,8,9-HxCDF	0.051 U	—	0.051	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	0.098 U	—	0.098	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	0.091 U	—	0.091	2,3,7,8-TCDD-37Cl4	0.20	87
1,2,3,6,7,8-HxCDD	0.11 U	—	0.11			
1,2,3,7,8,9-HxCDD	0.14 U	—	0.14			
Total HxCDD	0.11 U	—	0.11			
1,2,3,4,6,7,8-HpCDF	0.12 U	—	0.12	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	0.12 U	—	0.12	Equivalence: 0.0034 ng/Kg		
Total HpCDF	0.12 U	—	0.12	(Lower-bound - Using ITE Factors)		
1,2,3,4,6,7,8-HpCDD	—	0.20	0.11 IJ			
Total HpCDD	0.28	—	0.11 J			
OCDF	0.25 U	—	0.25			
OCDD	—	1.4	0.37 IJ			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).

EMPC = Estimated Maximum Possible Concentration

EDL = Estimated Detection Limit

Results reported on a total weight basis and are valid to no more than 2 significant figures.

J = Estimated value

I = Interference present

REPORT OF LABORATORY ANALYSIS

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Method 8290 Laboratory Control Spike Results

Lab Sample ID	LCS-71440	Matrix	Solid/Wipe
Filename	U190628B_18	Dilution	NA
Total Amount Extracted	10.5 g	Extracted	06/25/2019 15:10
ICAL ID	U190625	Analyzed	06/28/2019 23:08
CCal Filename(s)	U190628B_02 & U190628B_19	Injected By	SMT
Method Blank ID	BLANK-71439		

Native Isomers	Qs (ng)	Qm (ng)	% Rec.	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.20	0.20	102	2,3,7,8-TCDF-13C	2.0	97
Total TCDF				2,3,7,8-TCDD-13C	2.0	96
				1,2,3,7,8-PeCDF-13C	2.0	92
2,3,7,8-TCDD	0.20	0.22	112	2,3,4,7,8-PeCDF-13C	2.0	89
Total TCDD				1,2,3,7,8-PeCDD-13C	2.0	99
				1,2,3,4,7,8-HxCDF-13C	2.0	91
1,2,3,7,8-PeCDF	1.0	0.99	99	1,2,3,6,7,8-HxCDF-13C	2.0	93
2,3,4,7,8-PeCDF	1.0	0.99	99	2,3,4,6,7,8-HxCDF-13C	2.0	90
Total PeCDF				1,2,3,7,8,9-HxCDF-13C	2.0	86
				1,2,3,4,7,8-HxCDD-13C	2.0	92
1,2,3,7,8-PeCDD	1.0	0.93	93	1,2,3,6,7,8-HxCDD-13C	2.0	76
Total PeCDD				1,2,3,4,6,7,8-HpCDF-13C	2.0	66
				1,2,3,4,7,8,9-HpCDF-13C	2.0	59
1,2,3,4,7,8-HxCDF	1.0	1.1	105	1,2,3,4,6,7,8-HpCDD-13C	2.0	62
1,2,3,6,7,8-HxCDF	1.0	0.96	96	OCDD-13C	4.0	50
2,3,4,6,7,8-HxCDF	1.0	0.95	95			
1,2,3,7,8,9-HxCDF	1.0	0.97	97	1,2,3,4-TCDD-13C	2.0	NA
Total HxCDF				1,2,3,7,8,9-HxCDD-13C	2.0	NA
1,2,3,4,7,8-HxCDD	1.0	1.0	102	2,3,7,8-TCDD-37Cl4	0.20	111
1,2,3,6,7,8-HxCDD	1.0	1.1	113			
1,2,3,7,8,9-HxCDD	1.0	1.1	107			
Total HxCDD						
1,2,3,4,6,7,8-HpCDF	1.0	1.0	102			
1,2,3,4,7,8,9-HpCDF	1.0	0.95	95			
Total HpCDF						
1,2,3,4,6,7,8-HpCDD	1.0	0.95	95			
Total HpCDD						
OCDF	2.0	2.0	98			
OCDD	2.0	2.1	107			

Qs = Quantity Spiked
Qm = Quantity Measured
Rec. = Recovery (Expressed as Percent)
R = Recovery outside of target range

Y = RF averaging used in calculations
Nn = Value obtained from additional analysis
NA = Not Applicable
* = See Discussion

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